

# MANUFACTURERS' RECORD.

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## Manufacturers' Record.

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BALTIMORE, MAY 26, 1899.

### Era of Higher Prices for Iron.

The London Statist, which is noted for its careful, conservative survey of the world's business situation, in summing up a review of the sources of iron-ore supply, says:

Our own belief is that nowhere can the supplies of ore be so increased this year as to enable the estimated quantity of pig iron to be smelted. The future supplies can be increased, but will only be increased if the price of iron is maintained at a considerably higher level than in recent past years. In other words, we have entered upon an era of dearer iron, when instead of forties (shillings) consumers will have to reckon with pig iron in sixties, if not in seventies.

The very remarkable advance in the price of iron and the enormous demand which exists, not simply in this country, but throughout the world, for iron and steel, has come upon the people of the United States with such suddenness, after several years of depression, that all classes of business men have been inclined to doubt the permanency of this improvement, and have been made to fear that it is but a temporary boom which must soon react. Any careful investigation of the whole situation, however, would seem to prove that, although there may be temporary reactions for a month or two at a time, we have entered upon an era of expansion in trade and commerce and in the consumption of iron, based upon a wide increase in the uses to which it is put and in the development of new countries, which justifies the position taken by the Statist.

Commenting on the fact that the demand for iron is everywhere in excess of the supply, the New York Commercial of May 24 says:

Both this country and England are threatened with a famine in iron, and the present condition, due to the remarkable industrial activity of the last few months, which has made demands greatly in excess of expectation, is almost or quite unprecedented. Here at the North and also in the South there are furnaces idle which would soon be in operation but for the difficulty experienced in obtaining necessary quantities of ore and coke. While there may be some prospect of relief through the starting of additional furnaces, it will come very slowly, if at all. There is no falling off in the demand, and the supply is daily becoming shorter. Foundrymen are embarrassed by the present scarcity, and in Pennsylvania an ax and tool company, employing 200 men, has been obliged to close its works temporarily because of the difficulty experienced in procuring steel for immediate delivery.

In England many large consumers of iron have been running on very narrow margins

of stocks on hand, being reluctant to place large orders because of the prevailing high prices, though orders for finished products were accumulating on their own books, and now they see the situation complicated by still further advances in prices and no prospect of relief in sight. In Germany, too, stocks are very low.

### Railroad Co-operation.

The lease of the South Carolina & Georgia Railroad by the Southern Railway Co. has created a great deal of enthusiasm in Charleston, as the business men of that city realize that the Southern has the power to increase very materially the commercial importance of the city. That this increase does not depend upon the Southern Railway alone was strongly indicated by Vice-President Andrews, of the railway company, in the News and Courier. He said:

We do not propose to discriminate against any of our other ports for the benefit of Charleston, but what we intend to do is to furnish this city every facility for growing great commercially, and we expect the people to take advantage of the opportunity. We have no idea of diverting anything to Charleston from our other ports, but Charleston will be put on an equal footing with the other ports of the South Atlantic, and then the rest depends on the people. If I came down here and told a long story of the very great love the Southern has for Charleston, and that the city would be built up by the Southern on that account, the people would think that I was a great fool, or what is worse, that I was one great big prevaricator, not to mention several things that I would be called. The South Carolina & Georgia was leased as a business venture, and, of course, the Southern cannot make a dollar out of it that does not benefit Charleston; the profit, therefore, is mutual, and there should be united efforts between the railroad and the people of this city. The Southern will furnish the rates and the schedule and expects Charlestonians to get a move on themselves and use the schedule and the rates. Before we go any further it is best that this matter should be definitely understood, so that some people may not expect too much of the Southern.

This is a very candid statement, and will no doubt be heeded practically by Charleston's business men to their own advantage and to that of their city. Railroad companies are organized, not for philanthropy, but in the hope of earning money. They are business undertakings, and their success depends upon strict business methods, not only in their operations, but also in the attitude toward them of the communities which are fortunate enough to enjoy their facilities. These facts are sometimes forgotten, especially when legislators endeavor to force transportation companies to make rates for passengers or freight below the actual cost of hauling. A persistency in such a policy can have but one effect. If the grocer should be compelled by law to sell his goods for less than their cost to him he would soon have to shut up shop. So with the railroads; they have the power, in strict attention to their purposes, to benefit a community by bringing it into close touch with territory for its trade, by contributing to the enlarging of its shipping interests, and by the advertisement given to it as a railroad cen-

ter. That power cannot be exercised if the railroads are hampered by unjust legislation or by apathy on the part of the community. Colonel Andrews, in tersely calling attention to that fact, has conferred a benefit upon the railroads as well as upon Southern communities.

### We Pay the Freight.

Statistical Englishmen viewing the increased exports of the United States in comparison with decreased exports of Great Britain do not find an altogether gloomy prospect. This appears in an elaborate paper recently read by Sir Robert Giffen before the Royal Statistical Society of England. He conceded that there were obvious reasons why the United States should have an excess of exports. Among these he included the necessity for payment of interest on money owed in different foreign countries and the sums carried abroad by American travelers or sent abroad for the use of Americans permanently residing abroad. On the other hand he said:

The excess of imports is to be accounted for in the trade of a country like England in several ways, principally by the fact that England is a ship-owning country, and does a large business all over the world in carrying goods and passengers. This work is really in itself in the nature of an export, giving the country a credit for so much in its dealings with other countries. In addition, England is a country which earns largely commissions of different kinds in its trade with different countries as the commercial and monetary center of the world's trade. Last of all, England is one of the countries which has become entitled to the receipt of large interest and profits from other countries on account of capital which it has invested and business which it carries on in such countries, including the sums receivable by British subjects in the service of a dependency like India.

Among the countries which are paying England for their carrying trade are the United States. This payment, the statistician reckoned, absorbed considerable of our exports. He estimated that in recent years the proportion of imports and exports of the United States carried in foreign ships has ranged from 75 to 80 per cent, and added:

It may be mentioned, by the way, that the foreign country which does the carrying trade for the United States is mainly the United Kingdom, and in this difference between the two countries accordingly we have, pro tanto, an explanation of the excess of imports in the case of the United Kingdom, and of the excess of exports in the case of the United States.

These statements are quite suggestive. That Sir Robert Giffen is not inspired solely by national pride in arranging his statistics is apparent. It is therefore the duty of Americans interested in substantial and full returns from our foreign trade to devise and put into practical operation some plan whereby a large share of the profits of commerce shall not be absorbed in paying freight to other nations.

England may say with much truth, "Let us have the carrying trade and we care not who may produce the goods." It is for the United States to

say, "Let us produce the goods and carry them." To make this combination vessels are necessary. Vessels will not be obtained as long as other countries give direct aid to vessel builders and vessel owners and we do not. In the last Congress efforts were made to provide Americans with the means for meeting this competition of the citizens of foreign lands. The efforts failed. But the words of Sir Robert Giffen should encourage a renewal of them.

### Success in Journalism.

As a species of celebration of its birthday, The Baltimore Sun announced last week its intention to erect an auxiliary or emergency building. This structure is in line with the desire of the leading newspapers of the world to have more than one plant in case of accident in the home building. Newspapers like The Sun are too necessary to the public to run the risk of missing regular publication. This auxiliary establishment will be equipped with machinery of the latest pattern, including presses, stereotype machinery, etc., and rooms for all the necessary departments of a first-class morning paper. This movement of The Sun is characteristic of the policy which has guided it successfully for many years; how many years it is unnecessary to say. The years of a newspaper's life are not necessarily of value in determining its character. Some papers are born senile; others, coming into existence with hope of a bright future, soon pass to the overstocked journalistic graveyard through mismanagement or misconception of their duty; others develop disgraceful libertinism with increasing years, drifting far from respectability in pursuit of quick gains, while others, opportunist in conception and opportunist in action, never learn what journalistic principles are.

The years of The Sun are but the records of a steady advance along lines indelibly impressed upon it by its founder, the late A. S. Abell. His newspaper instinct was to publish a paper presenting clean, fresh and accurate news, comments upon momentous questions from the standpoint of definite conviction and miscellaneous matter bearing upon current events as contributing to the general culture of the community. In its long career The Sun has made changes, but these have been normal developments from the original stock rather than grafts. They have always been for the betterment of the paper and for the benefit of its wide constituents. Today The Sun is as vigorous, as enterprising and as alert as the veriest youngster in the field. It has the advantage over new publications in possessing a character square with its long-established reputation for honesty of purpose and courage in expressing its views. It has the advantage over many of its contemporaries of like age in that it is free from the splotches and stripes of unnecessary degeneracy. Its theory seems to

be that American newspapers should not take their tinge from the mud-sills of journalism, but should maintain the even tenor of their respectable way without regard to the freaks or frenzies of so-called competitors whose sole aim is quantity and not quality. For this reason the people of Baltimore, Maryland, Virginia, West Virginia, Pennsylvania and the South look to The Sun for their daily news. Whether or not they always agree with its editorial position, they respect it, and take a certain pride in knowing that The Sun's opinion on questions of importance to the country has equal weight with the views of the leading newspapers in other parts of the land. The Sun has for years been published by the A. S. Abell Company, and its latest undertaking indicates a continuance of a policy which has kept it in the front ranks of American journalism. Because of these facts, and because it has ever been an absolutely clean family paper—a paper which every man can take into his family with safety—the Manufacturers' Record is moved to say these things, notwithstanding the fact that we constantly radically differ with The Sun on many economic questions.

#### Southern Farm Magazine.

The June number of the Southern Farm Magazine of Baltimore contains a number of articles of practical timeliness for the South. The subject of education as bearing upon Southern progress is discussed in more than one article. Hon. J. L. M. Curry, distinguished for his labors in connection with the Peabody and Slater funds in behalf of Southern education, writes from the standpoint that the South now recognizes that the cost of general education is the most legitimate public charge, and that labor must be diversified and skilled, and in constant and practical union with directed intelligence, and argues from that that industrial education or manual training should be made a part of all public-school instruction. He insists upon adequate revenues for the public-school system, well-administered by able officers, well-supported by public opinion, and free from political and sectarian influence. Dr. T. W. Harwell of Tennessee treats the public school as the farmers' preparatory and finishing school and university, and demands, therefore, that it should have special reference to the place the farmer is destined to fill as a citizen and to his industrial life. Complementary to these are articles by Mr. Wade H. Harris, discussing the benefits derived by farmers from the establishment of cotton mills; on the negro problem by Peter Pechin, in which politics is held to be the root of the race conflict, and the suggestion is made that the evil may be cured by the whites insisting upon the disuse of the negroes as political tools, and by Col. J. B. Killebrew, who points out gratifying signs of progress in the South as public opinion becomes more and more inclined to welcome corporate capital. A second instalment of "The Experiences of an Amateur Farmer," by Boaz, will amuse the practical farmers, many of whom will recall actual instances of the experiences set forth in this fiction. Considerable space in the literary department is devoted to the difficulties for the student of history created by the events of the past year in this country. The "Family Circle" and the "Young Folks' Department" contain interesting and instructive reading. The Southern Farm Magazine is published by the Manufacturers' Record Publishing Co. of Baltimore. Price \$1 a year.

#### BRISTOL THE CENTER.

##### Wonderful Activity in Steel and Iron Industries.

[Special Cor. Manufacturers' Record.]

Bristol, Tenn.-Va., May 22.

This city continues to be the industrial center of Southwest Virginia and East Tennessee.

The Virginia Iron, Coal & Coke Co., of which Geo. L. Carter is president, with offices in Bristol, as well as in New York, is having mortgages for \$10,000,000 recorded in the several counties of the States of Virginia, Tennessee and Kentucky in which this company has purchased property.

In addition to iron and steel works, which have been enumerated from time to time, the company owns several thousand acres of iron-ore and coal lands, including the Toms creek coal mines and coke ovens, near Coeburn, Wise county, Virginia, the Carter county and Doe Mountain, Johnson county, Tennessee, steel-producing iron-ore lands, and the Crane's Nest coal lands of Dickenson and other Southwest Virginia counties.

With the purchase of the Middlesboro,

the Embreeville and the Carnegie furnace at Johnson City, this corporation has absorbed nearly all of the principal iron-producing industries of Southwest Virginia, Eastern Kentucky and some in Tennessee. This company has in operation at present the two furnaces at Middlesboro, the two Crozier furnaces at Roanoke, the Carnegie and Embreeville furnaces (total six). The Camden, at Salem, Va., has been torn down and is being used in the repair of others at different places. The Dora, at Pulaski, Va., is being enlarged from a capacity of 150 to 200 tons per day. The Home, at Bristol, is being increased from 200 to 225 by the placing of another engine (making four), the erection of a fourth stove and second sandhouse or molding-room. The Dora will likely "blow in" the first of June. The delay in blowing in the Home is caused by the construction of the twelve miles of railroad, which is now being built from Elizabethton, Carter county, Tennessee, to the magnetic iron-ore mines on Stoney creek, in the same county. These latter lands and railroad, the Virginia & Southwestern Railway, are also the properties of the Virginia Iron, Coal & Coke Co., and this company has a corps of engineers in the field surveying a route from Elizabethton to Johnson City, Tenn., in order to get their own coke and ore to their own furnaces over their own road, as will soon be the case at Bristol.

The Interstate Coal & Iron Co. was granted a charter in Bristol, Va. (this city being located one-half each in the States of Virginia and Tennessee), May 18. The capital stock is placed at \$900,000. It is officered thus: President, B. S. Clark, New York; vice-president, Geo. M. Holstein, Pulaski, Va.; secretary and treasurer, Thomas Clyde, New York; directors, B. S. Clark, Geo. M. Holstein, Thomas Clyde, F. W. Huidekoper and Nathaniel Thayer. The company will have an office in Bristol, making the dual city the center of their operations, which will be the purchase and development of mineral properties in Virginia, Tennessee, Kentucky and North Carolina. Nathaniel Thayer and F. W. Huidekoper are capitalists, respectively, of Boston and Washington city, while Thomas Clyde represents his father, W. P. Clyde of the Clyde Steamship Co., and B. S. Clark, it is understood, represents the interest of the John H. Inman estate. Geo. M. Holstein is manager of Bertha Zinc Works at Pulaski City, Va.

This company will purchase the mineral

and timbered lands formerly owned by the Virginia, Tennessee, Carolina Steel & Iron Co., and which are now being sold by decree of court to satisfy mortgages. These lands lie in Washington, Russell, Scott, Lee, Wise, Buchanan and Dickenson counties, Virginia; Carter, Johnson, Unicoi and perhaps other counties, Tennessee, and Mitchell and other counties of North Carolina. The minimum price fixed by the court is only about \$75,000, and it is almost absolutely certain that the Interstate Coal & Iron Co. will be the purchaser.

The Western Union Telegraph Co. will reconstruct at once its line from Bristol to Radford, Va. The distance is 100 miles, and new poles, cross-beams, insulators and wires will be used throughout.

"Dixie" Tannery, Chas. Schieren, New York, proprietor, located at Bristol, is now tanning and finishing 200 heavy belting hides per day. The present plant covers ten acres of ground. Seven acres additional have been purchased, upon which it is purposed to erect a belt-making manufactory, which, when done, will turn out the belting ready made from Bristol complete and ready for shipment and use.

Several large business buildings and many handsome residences will be built in Bristol this year.

L. D.

##### Progressive Greensboro.

[Special Cor. Manufacturers' Record.]

Greensboro, N. C., May 22.

The industrial development of the past week at this city has been satisfactory, among which has been signing of contracts, securing another textile mill, capitalized at a very liberal figure, and to be one of the largest in this section, and there are over 100 cotton mills within fifty miles. This mill will be a new departure, in that the product is not now made in this State.

With our present mills now in operation, cotton-flannel mill under construction, and the first above mentioned all going, there will be required 400 additional houses in that particular section. This will establish a population of 4000

people at Proximity, which is a suburb of Greensboro, the two places being connected by a beautiful avenue dotted with handsome residences and shade trees, on which some \$30,000 has been expended on the street. The above operations are results of efforts of the Cones, wide-awake, progressive and leaders in the industrial march of this city. I have not observed where any two individuals have located manufacturing enterprises in the South, or built a town of 4000 people within three years, as have done Moses and Ceasar Cone at Greensboro. Of manufactures they have brought to us Proximity Cotton Mills, Hucamuga Cotton Mills, finishing mills, cotton-flannel mill and the new mill referred to; besides these, they have brought the Simpson-Shields Shoe Co. and Merchants' Grocery Co., both wholesale, and many other minor interests, which in total approximate an investment of \$1,500,000. These gentlemen deserve unbounded credit, and are people any city would be proud to have interested in her development. Can any other city in the South produce their equals? Such men build a city, even should no concerted effort be made.

Pig iron of superior quality is being produced at the furnace of the Empire Steel & Iron Co.; another blowing engine is being installed, and two furnaces moved from Alabama are arriving, which will be erected just north of the present plant. There are good indications that a rolling mill will be established here at an early date, and if so, in its train will follow smaller industries which utilize the product.

The Hunter Manufacturing Co. has doubled its capacity and working 100 hands on overalls. Another steam laundry will begin operations next week. New business and dwelling-houses are going up in all directions. A proposition is before our people to macadamize forty miles of roads leading to Greensboro, to which Ceasar Cone has subscribed one-fifth the total estimate of cost. It is thought the city will vote favorably on \$300,000 bond issue in July for municipal improvements. There have been some changes in the railroad situation, which, it is thought, will eventually prove much to our advantage, in addition to the present good facilities. Our woodworkers are all busy as bees, and altogether the situation is satisfactory, very satisfactory. With our cotton goods, pig iron and timber, all of which we have in unlimited quantities of raw materials, going to every part of the world, which is the fundamental basis of all successful manufacturing, we are entering upon an industrial activity unsurpassed heretofore, and the future will bring an industrial development which to be now told would appear a fairy tale.

G. T. KEARSLEY.

##### The South All Right.

In a letter to the Manufacturers' Record Messrs. Hutton & Bourbons, manufacturers of lumber, boxes and shingles, of Hickory, N. C., write as follows:

"We have been a subscriber to your paper for nearly two years, and have found it of material benefit at times in placing and disposing of some of our output. The South is all right, more especially where they have rubbed up against the outside world a little. But in some sections where they have become fossilized it gets next to one to keep in the swim. We just had a case in the Supreme Court where a floatage tax was declared invalid, where nature was taxed in her natural state. First we had to have this big Catawba river made a floatable stream, then the other followed. Litigation costs, and is a pull on legitimate business."

##### Bombay Inquiries for Steel Rails and Machinery.

The Globe Stores Co., general merchants of Bombay and Dundee, in a letter to the Manufacturers' Record from Bombay under date of April 27, writes as follows:

"We have written by last mail, on receipt of the Manufacturers' Record, to \_\_\_\_\_ and \_\_\_\_\_, inquiring about steel rails, and we await their replies. Already we have had business connections with your country, and we are further cementing the ties by placing more orders through the representatives of your well-established houses in Bombay. There is, as you are already aware of, much keen competition going on between England and America, and what little advantage we get in rates from your firms is lost in freight charges, to say less of the delay in transit."

##### Power from James River.

A contract has been let to Messrs. Winston & Co. of Louisa, Va., for constructing the power plant on the James river at Richmond, Va. The contract price is \$128,930. It includes a dam across the river, also the construction of a powerhouse, which, it is calculated, will secure 14,000 horse-power for generating electric currents. The power canal will be fifty feet wide and twenty feet in depth, while a steam plant, it is understood, will also be installed of 3000 horse-power. The plant is to be built for the Virginia Electric Railway & Development Co., of which E. L. Bemiss is president, and Carl Nolting, secretary and treasurer.

## IRON AT BIRMINGHAM.

## Anticipated Output for 1899 Has Been Well Sold Up.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., May 23.

The market for iron was better during the past week, both in demand and price. The demand was pretty general, and a good deal of it was passed by the sellers on account of price and delivery being unsatisfactory. But all that the furnaces cared to take was booked, and at prices that showed an average advance of fifty cents per ton. Gray forge sold at \$10.75 and \$11. It cannot be had now under \$11.25 save in exceptional cases. No. 3 foundry sold at \$11 and \$11.25, but it is now held at \$11.50. No. 2 foundry sold from \$11.75 to \$12.25, and is now quoted at \$12.50. No. 2 soft is the same price as No. 2 foundry. No. 1 foundry sold at \$13.25 for export, but only in a small way. One furnace interest stated that in No. 2 foundry they could make no further sales for delivery this side of September. This is bound to create a congestion in the market, but it will be in the demand, for even a small one, with no iron to supply it, is bound to stretch prices. The character of the demand was such as to confirm the report of scarcity of certain grades in the Central West. Basic iron, which has usually hovered around the price of gray forge, sold at \$12, the highest price since the Tennessee Company commenced to make it, and fully \$1 above the price of gray forge. At this price 10,000 tons were placed, and more could have been sold had the sellers been so inclined. No. 2 soft sold at \$12, as also did No. 2 foundry in round lots, while gray forge was in demand at \$11. Small lots sold at a premium over these prices of from twenty-five to fifty cents.

It must be remembered that what we call a good demand now is relative. What, under ordinary circumstances, when furnace yards carried good stocks, was called but an ordinary, counts now, when furnace yards are bare, as a good demand. There is still no accumulation in furnace yards, and none in warrant yards. In the latter shipments continue as fast as the cars are supplied for loading. It is a slow process, but a continuous one, and is constantly depleting the yards. It is hard to forecast, because the furnaces are now pretty well sold up for 1899. As yet there are no sales reported for 1900. Three furnace interests are more or less in the position of having sold their anticipated output for 1899 as close up as sound business prudence commends.

The Pioneer Company, now under control of the Republic Iron & Steel Co., will of course direct their attention to supplying the wants first of their own properties before going on the general market. The furnace capacity of the Pioneer Company will be added to either by the erection of two new furnaces of the capacity that experience here approves, or of one single furnace of the capacity of the two. Which will be done has not yet been determined. The rolling mills are running on one wheel as yet. The Chancery Court has issued its final decree to the receivers, modifying its previous decree authorizing the sale and naming the conditions for its approval, etc. Of course, there is a great deal of detail connected with the matter, and time is a factor in the final settlement and transfer. They don't even know yet who will be selected as the local officials.

The I. H. Kinney Oil Mill here is erecting a branch mill at Greenwood, Miss., which speaks well for the success that has attended them here. Some large concerns in industrial lines are investigating the opportunities afforded by this locality,

but nothing definite has been done yet. They are impressed, but not yet fully convinced.

J. M. R.

## Eastern Iron Markets.

[Special Cor. Manufacturers' Record.]

Philadelphia, Pa., May 25.

The iron trade is approaching a crisis which may be reached in June. Within a few days prices of all crude iron have been advanced, and of most finished products. The reason on the surface simply is that the demand is greater than the immediate supply. The question just now uppermost in the minds of a good many is, are we again entering upon an upward course of prices, and if so, where will we land? Following this onerous inquiry is the most natural one, viz.: What had we better do now? Not a few large consumers in the West have answered this question by buying, or rather contracting for, all the material they will want this year. This absorbs most of the productive capacity and leaves not a few needy purchasers out in the cold.

Prices of Bessemer pig, according to the meeting to be held today at Cleveland, will probably be advanced to \$17, valley price, which means \$17.65 at Pittsburgh. The estimated shortage is from 100,000 to 200,000 tons.

The quotations of pig iron have been advanced, and are as follows: No. 1 X foundry, \$17 to \$17.50; No. 2 X foundry, \$16 to \$16.50; plain, \$15.75 to \$16; standard mill iron, \$15.50 to \$15.75; basic iron, \$16; low phosphorus, \$19 to \$20. There is only a moderate amount of buying, but a great deal of negotiating is going on.

Billets are badly wanted, and are quoted at \$30 to \$30.50, and may go higher on account of pig, the scarcity of ore and other influences, not forgetting a demand of greater proportions than can be supplied.

The bar-iron demand is moderate, because mills are sold as far ahead as they care to be. The prices have advanced to 1.50 for common and 1.65 for refined to 1.85 and 1.95 for steel bars, for which there is just at present a very good retail demand.

The skelp mills are now called upon to put in quotations for a great deal of business. Trolley-road work is pushing.

No further change has taken place in the sheet mills. Business is as good as it can be, considering that all mills are far oversold. The most urgent call now is for corrugated material and roofing tin.

The old story is repeated this week concerning merchant steel. Business has been slack with some agents, but the signs of possible advances that have been looming up in the West have hurried a number of large Eastern consumers into the market, and yesterday and today considerable business has been sent to the mills for acceptance or rejection.

The most interesting feature of the iron trade is found in the plate-iron branch. What is to come of the "turned down" business none can tell. Your correspondent endeavored to ascertain just how much business has been rejected or set aside or declined outright within a week, but the result was not numerically satisfactory. This statement, however, can be made, that there are customers for some 20,000 tons of plates who have not yet secured acceptances, and some of whom have no encouragement. There is a great deal of business of this kind. Quotations today are 2.30 to 2.40 for quarter-inch plates; shell, 2.40 to 2.50; flange, 2.60; fire-box, 2.70. These quotations are liable to change any hour, and they will not be downward.

There are this week a lot of enquiries for structural material which will result in orders. Bridge building and office building will constitute a big factor. The

mill are in position to accommodate a good deal of autumn business. There will be an enormous rush of construction work towards the end of the year.

Steel-rail mills are gathering in orders, big and little, at a rate which means an oversold capacity for this year before long. We hear of big foreign orders as likely to come. They had better come soon. Quoted \$27 for standard in mill orders.

Old iron rails are very active, but they never appear in the open market. The transactions are quietly closed between holders and consumers. Market price, \$18 to \$19.

A great deal more scrap would sell if it could be had.

There are rumors of a drop in bituminous coal at shipping points in a few days.

## THE WORLD'S IRON TRADE.

## A Striking Survey of the Situation by the London Statist.

In discussing the position and movements in the iron trade we have from time to time indicated that the crux of the situation lies in the iron mines. The iron smelters of the world—at all events, those of Europe and America—cannot increase the production of pig iron unless they can obtain more iron ore than is at present forthcoming. It is useless to talk of the number of furnaces standing idle as a reserve power if there is not ore to feed them. It is also useless to pretend that all the idle furnaces are effective reserves in any case, for it is well known to those in the trade that a great majority of the furnaces standing "black" are mere useless erections of brick—monuments of departed industry. Of the 200 and odd furnaces "out" in this country, there are probably not more than fifty—and we doubt if there are so many—that can ever be used again in any reasonably conceivable circumstances. And we are disposed to believe that a similar state of affairs exists in America. New furnaces can be built, of course, but a blast furnace takes many months to build and costs a great deal of money. There can be no inducement to build any on either side of the Atlantic so long as the present obscurity hangs over the question of ore supply.

It is now ten months since we called serious attention to this matter, which other journals are just beginning to waken up to. On July 9 last we showed how the great and growing demand for steel is absorbing all the available supplies of hematite ore, whilst the supplies of steel-making ore are falling off. This is particularly the case with regard to Spain, from which country we import, practically, all the ore we use for steel-making except what hematite is produced by the Cumberland mines. When the mines of the Bilbao district were first opened up it was only the fine "Campanil," or best hematite ore, that our smelters would look at. Years ago that quality was practically exhausted, and our smelters were glad to take "rubio," or common hematite. But now that rubio is decreasing in supply and depreciating in quality, as the best mines are being worked out, and all sorts of poor stuff are being shipped as ore which aforesighted smelters would not have accepted a present of. The fact, then, that the imports from Spain during the first quarter of this year show an increase upon the last two years does not count for much. The figures were:

	Tons.
First quarter 1899 .....	1,790,138
" " 1898 .....	1,513,347
" " 1897 .....	1,612,988

But in 1899 the imports included parcels that would not have found a market in

1897. And this poor ore costs the consumer a great deal more than he has been accustomed to pay for the best rubio, because of the scarcity, the high freights which have been ruling, and the export duty now imposed by Spain. A peculiarity of the iron-ore deposits of Spain—especially, we believe, of the richer ores—is that they are often in pockets, and one never knows when a good mine may be found to be scooped out. Thus, while it is known that the product of the Bilbao district cannot be increased, it is not known exactly how soon it may give out altogether. Three years ago the quantity of rubio remaining in the district was estimated at between 40,000,000 and 50,000,000 tons. Fully a third of that quantity must have been since extracted. Assuming that the original calculation was correct, and is not upset by the sudden giving out of pockets, there is not more than about five years' supply of hematite ore in the Bilbao district at the present rate of extraction. For it must be remembered that we are not the only customers for that ore. Germany and France are also large and eager buyers—larger buyers than ever they were—and America is now importing considerable quantities of Spanish ores—not merely the Marbella quality for which American smelters have always had a liking, or a special advantage in working.

The increase in imports of last quarter, to which we have referred, may be taken as in some sort the measure of the effect on the world's supply of the great pressure for material. And how trifling it is after all! Last year our imports were almost exactly half a million tons less than in 1897—viz., 5,468,395 tons, as against 5,968,680 tons—and of that total 4,684,333 tons were from Spain. In our previous article we mentioned that great efforts were being made to develop production in the Santander district. These efforts resulted in bringing the exports of that port last year up to 834,000 tons, but as all the Santander ore has to be "washed" before it can be shipped, not much greater development need be looked for. Santander, however, is the only producing district of Spain which exported an increase last year—except Seville, the export from which, however, is practically all from one mine, the property of Messrs. William Baird & Co., Glasgow, who use it all (374,000 tons last year) in their own works. That is to say, the present supply of Seville ore does not come on the market, and is never likely to do so. The other 784,062 tons of our imports came from Sweden, Algeria, Italy and Greece, but not all of these ores are suitable for steel-making.

To turn now to our home supply. In 1897 the actual output of mines and quarries in the United Kingdom was 13,787,878 tons of ironstone. In 1898 the total output of all mines and quarries was 14,176,938 tons. Most of the increase was by Cleveland and Staffordshire, for there was a decrease in Scotland. The largest producing area is Cleveland (5,785,109 tons), but none of that product is in itself suitable for steel-making by ordinary furnaces. The next largest producing area is Cumberland (over 2,000,000 tons), and this is practically all suitable for steel-making, but is the only native hematite ore we possess. According to the returns of the British Iron Trade Association, the total available ore supply of the United Kingdom in 1898 was 19,948,395 tons, composed of 14,000,000 tons home product, 5,468,395 tons imported and 480,000 tons purple ores from pyrites. This total compares with 20,223,876 tons in 1897, and shows an overhead shortfall of 275,481 tons on the year. It will be seen that we are at present dependent on Spain for nearly one-

fourth of our entire ore supplies, and for more than two-thirds of our supplies for steel-making purposes.

We are perfectly well aware, of course, that some of our native ores, and some imported ores besides the Spanish hematite, can be utilized for steel-making by the basic process. We are perfectly well aware that that process is largely in operation in Cleveland, is proposed to be extended there, and is in operation in some four furnaces in Scotland. But the adaptation of furnaces to the basic process is a long and costly operation that ironmasters will not adopt until they are convinced (1) that no more hematite can be obtained at a reasonable price; (2) that ore sufficiently rich in phosphorus to make the basic process profitable can be depended on, and (3) that prices of iron and steel are likely to be maintained at a level that will make a change in the method of working remunerative. That is to say, an adoption of the basic process on a sufficiently large scale to make up for the prospective decrease in the supply of hematite iron is an affair of many months, if not of years, and of enormous capital expenditure. Meanwhile, we must reckon with things as they are.

The world's output of pig iron in 1898 is computed at 35,000,000 tons. That is, on the usually accepted basis of two tons of ore to one ton of pigs, represents 70,000,000 tons of ironstone. Are the known resources of the producing countries equal to a continuous drain on that scale? But the output of pig iron this year, if America reaches her 14,000,000 tons, Great Britain makes up for the Welsh stoppage of last year and more, and Germany continues at present rate, will be, say, 38,000,000 tons, which represents 76,000,000 tons of ore. As a matter of fact, however, more than two tons of ore must be reckoned to one ton of pig iron, for while we absorbed, as shown above, nearly 20,000,000 tons of ore last year, we only produced 8,631,151 tons of pig iron. Of course there were stocks of ore on hand, in transit, and in process included in the reputed consumption, and not represented in the returned output of pigs; but with all allowance for that the two to one measurement is not sufficient. For the anticipated make of pigs, then, at least 80,000,000 tons of ore will be needed. Where is it to come from? Last year the United States mines produced 23,000,000 tons, the Spanish mines 7,000,000 tons, the German mines, say, 16,000,000 tons, the British mines 14,000,000 tons—in all, 60,000,000 tons. America, Great Britain and Germany alone consumed 56,000,000 tons last year, and this year will need at least 65,000,000 tons if the promised production is to be effected. The problem is to supply that quantity, and of quality adapted to existing plant. That there are undeveloped resources in Spain is not to be denied, but development takes time, and is a matter of cost, which, of course, becomes greater the further the deposits are from the seaboard. That our home supply can be materially increased is very doubtful—unless, at any rate, iron attains to a permanently higher level than at present. That the reserves of the United States are "practically inexhaustible" we are all accustomed to think, but the utilization of these reserves is all a question of price. Our own belief is that nowhere can the supplies of ore be so increased this year as to enable the estimated quantity of pig iron to be smelted. The future supplies can be increased, but will only be increased if the price of iron is maintained at a considerably higher level than in recent past years. In other words, we have entered upon an era of dearer iron, when, instead of forties, consumers will have to reckon with pigs in sixties, if not in seventies.—The Statist, London.

### THE COAL OUTPUT.

#### Comparison of the Business in 1897 and 1898.

The output of coal in this country increased from 199,504,989 tons in 1897 to 218,492,640 tons in 1898. Every State gained except Illinois, North Carolina and Oregon. Of course, Pennsylvania led in actual gain, but the only other States showing an increase beyond 1,000,000 tons were Ohio, with a gain of 1,425,400, and West Virginia with 2,899,720 tons. The figures as given in Coal Statistics for 1898 are as follows:

State.	1897.	1898.
Alabama	5,893,771	6,162,516
Arkansas	881,773	1,164,064
California	86,402	142,200
Colorado	3,585,640	4,184,037
Georgia	200,810	244,188
Illinois	20,072,758	18,599,299
Indiana	4,238,115	5,177,044
Indian Territory	1,302,378	1,458,098
Iowa	4,166,298	4,803,853
Kansas	3,692,197	3,852,713
Kentucky	3,339,121	3,572,134
Maryland	4,411,932	4,621,618
Michigan	152,850	178,035
Missouri	2,429,388	2,838,152
Montana	1,643,237	1,896,587
New Mexico	733,539	858,582
North Carolina	20,000	5,000
North Dakota	86,246	120,000
Ohio	12,300,000	13,725,400
Oregon	103,690	101,256
Penn., anthracite	52,431,763	53,217,408
Penn., bituminous	55,169,800	64,712,872
Tennessee	2,668,446	3,084,748
Texas	563,279	684,560
Utah	582,092	673,297
Virginia	1,439,172	1,640,350
Washington	1,218,887	1,717,515
West Virginia	13,110,529	16,010,249
Wyoming	2,663,133	3,046,840
Total	199,504,989	218,492,640

### Kentucky Coal and Coke.

According to the report of Mine Inspector G. W. Stone of Kentucky, there were produced in 1898 3,492,243 tons of bituminous and 49,889 tons of cannel coal in the State. The total production is the largest ever made from Kentucky mines, and was 238,078.62 tons more than the production of 1897. The cannel production was less than that of any year since 1893. There was a material decrease in the demand for the coal, and the output was made accordingly. In explanation of the shortage it is stated that most of the product is marketed in foreign countries, and much of it in Spain. This trade was cut off by the late war. The return of peace and the resumption of trade relations are expected to revive the demand for this important Kentucky product. The coke produced amounted to 21,393.53 tons, a decrease of more than 10,000 tons.

### Alabama Minerals.

According to State Geologist Eugene A. Smith of Alabama, the output of minerals reported and estimated in the State during the first three months of the year was coal, 1,761,271 tons; coke, 358,320 tons; iron ore, 546,310 tons; pig iron, 242,590 tons; stone for flux, 111,029 tons; bauxite, 2918 tons, and barrels of lime, 31,500.

### Literary Notes.

Coal Statistics, 1899. Publishers, Alder & Ruley, Philadelphia, Pa. Price fifty cents.

This is the sixth annual edition of this valuable manual, giving complete directories of all the coal mines in the United States, together with statistics of production and distribution, and other matter relating to the coal trade in general. In this edition the tables giving the production of coal by counties for each State have been compiled from statistics obtained from official sources, and are brought down to the close of the past year.

### COMMERCE.

This department is devoted to a record of the rapidly developing commerce of Southern ports.

#### To Transport Coal.

Another company has been formed, according to a dispatch from Cleveland, Ohio, to engage in the coastwise business between the ports of Hampton Roads and the North Atlantic seaports. This is the Boutell Transportation & Towing Co., organized under the laws of Ohio, with \$300,000 capital. It is announced that the company will confine its business principally to the transportation of coal from Newport News and Norfolk and will employ a large fleet of vessels in this service.

#### Tennessee River Improvement.

The congressional committee which has been examining the Tennessee river with the view of improving navigation has made a report to the effect that it will cost about \$3,500,000 to deepen the river to allow a depth of six feet of water from Chattanooga to the Mississippi river. A series of dams will be required to maintain a proper level, while a large quantity of rock will have to be excavated at shoal points. The question has not been decided as yet.

#### Norfolk to the West Indies.

The Antilles Transportation Co., it is announced, has made arrangements to secure wharves at Portsmouth, also Norfolk, and will maintain a regular service from these cities to the West Indies. It is expected to establish a schedule in the near future, and it is reported that warehouses are to be constructed immediately on the wharf sites, which have been secured.

#### New C. & O. Elevator.

The elevator to be built by the Chesapeake & Ohio Railroad at Newport News, Va., as already stated in the Manufacturers' Record, is to be 238 feet long, 101 feet wide and 169 feet high. It will be nearly as large as the present elevator, and two railroad tracks will enter it. About 800 horse-power will be required to operate it.

#### Jottings at the Ports.

Business men of Chattanooga, Tenn., are considering the idea of operating a steamboat line between that city and Riverton.

There is a possibility that the Louisville & Nashville Railway Co. will soon put on a steamship between Pensacola and Cuban ports. It is understood that the company is negotiating for a boat to carry freight and passengers.

The Baltimore Steam Packet Co. has let a contract for constructing what will be known as a wharf barge. It will be utilized at the Light-street wharves of the company now being built at Baltimore to give additional facilities for loading and unloading cargoes from steamers.

In addition to the steamship lines already referred to, to be placed in service between Norfolk, New York and Amsterdam, it is announced that the United States Shipping Co. has determined to include Rotterdam also. The service is expected to begin about September 1.

Boat-building companies in the vicinity of New Orleans are securing a large amount of business at present. At the yards at Ramos, La., a transfer barge has been recently completed which is 225 feet in length, 42 feet beam and 10 feet in depth. Contracts have also been secured for a large coal barge, also a towboat for use on the inland waters of Louisiana.

The company owning this yard will probably bid for a dredge which is to be constructed for the government, which, it is estimated, will cost about \$100,000.

According to a statement of Messrs. Simpson, Spence & Young, representing the North American Transport Co., the additional service from Newport News to Europe to be inaugurated will include lines direct to London and Hamburg. The number of vessels will depend upon the amount of business offering.

According to the latest bulletins of the bureau of statistics for the eight months ending April, 1899, the exports of cotton from Galveston amounted to 1,931,115 bales, valued at \$54,691,000. This is an increase of nearly \$9,500,000 over 1898, and is about \$12,500,000 more than the value of the shipments from the next port in importance.

The Clyde Steamship Co. has secured piers at the foot of Christopher street, New York, which will add considerably to its terminal facilities in that city. The new piers are in the heart of the business section, and will be of great benefit in handling the large consignments of fruit and vegetables which reach New York from the South by way of the Clyde Line.

#### They Wish Mills.

[Special Cor. Manufacturers' Record.]  
Groner, N. C., May 19.

This immediate section has many advantages for cotton mills. It is situated in the Piedmont section, with pure air and good water. Everything is right at hand in the way of building material. But as it is clay is being shipped from here to other places to be made into brick at a cost of more than \$30 per car freight. Lumber and wood are also being sent away to use in factory construction. Enough cotton is sold at this place to operate a large mill. The Southern Railroad offers good shipping facilities. A good amount of the stock would be taken by the people here in a mill, but what we need is some person with money and experience to take charge and start the enterprise, and we are sure of success.

JOHN G. WHITE.

Leonard's Railway News of New York pays the following compliment to the Southern Railway Co.: "The recent developments during the past week in the Southern situation which brought about further additions to the mileage of the Southern Railway must necessarily be followed by a further strengthening of the rate situation in the South. The broad and liberal policy of President Spencer, which is so ably and successfully carried out by Vice-President Finley, is felt all over the South. There is peace apparent on all sides. New territory has been entered and the benefits of

low charges extended to every locality, and the remarkable result has been the public acknowledgment by the authorities. The rate situation in the South is a model for other sections of the country, and this most desirable condition has been attained by the firm and broad-spirited policy of the Southern and its intelligent management. The expansion of the Southern Railway has been steady and natural, and every mile that it has added to its important mileage is in the direction of dividends and public duty."

According to the annual report of the Business Men's Association of Norfolk the value of the oyster trade during the season just closed amounted to \$1,641,000. This does not include the oysters consumed in Norfolk and vicinity.

Mr. P. R. Sledge has been appointed commercial agent for the Southern Railway Co. at Augusta, Ga.

## RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### The Transylvania Company.

In a recent issue the Manufacturers' Record referred to the purchase of the Hendersonville & Brevard Railroad, extending from Hendersonville to Brevard, by a company which has changed the name of the road to the Transylvania Railway Co. The new company includes the following parties from Pittsburg, Pa.: C. H. Stolzenback, secretary and treasurer of the Iron City Sand Co.; E. B. Alsop, E. H. Jennings, Fred Gwinner, contractors; H. P. Cunningham of the American Tinplate Co. of New Castle, Attorney S. W. Cunningham, G. W. Elsenbels, treasurer of the Central Accident Insurance Co. of Pittsburg, and W. P. Potter of Stone & Potter. Mr. Potter is president.

The new company controls a large body of timber land near the line of the railroad, and it is understood intends building an extension which will enable it to reach this property and place the lumber on the market. A separate corporation, called the Toxaway Company, will develop the timber lands.

### Electric Line in Spartanburg.

Arrangements have finally been completed for the construction of an electric railroad, also a power and light plant, at Spartanburg, S. C. In a letter to the Manufacturers' Record Mr. P. H. Gadsden of Charleston states that a company has obtained a 40-year franchise for the railway and light plant and a 10-year contract for lighting the city. It is proposed to build a power-house immediately, while a contract has been made with the city to build five and one-half miles of electric line by January 1, 1900, the work to begin by June 1 of the present year. It is calculated to eventually extend this road to several cotton mills near the city, making the entire line about thirteen miles in length. The company is to be capitalized at between \$150,000 and \$250,000. One of the principal promoters is F. D. McEwen, who was formerly secretary and treasurer of the Charleston Street Railway Co. Associated with him are several other gentlemen interested in constructing the electric railroad system in Charleston.

### Mobile & Ohio Changes.

The Mobile & Ohio Railroad Co. announces a number of important changes. The office of general manager has been abolished and the line will be operated in three divisions, to be known as the Mobile, Jackson and St. Louis divisions. The following offices have been created: General superintendent, superintendent of transportation, superintendent of motive power and car equipment, assistant superintendent of motive power and car equipment, assistant superintendent of the Mobile division, with jurisdiction between Artesia and Montgomery, and assistant general traffic manager. At the suggestion of the chairman, the board of directors has recommended to the president the following-named persons to fill the offices in the order specified: C. S. Clarke, J. N. Seale, M. T. Carson, J. D. Gurganus, W. N. Jones and C. W. Gibson. The following superintendents have been appointed for the three divisions: Henry Fonde, J. D. Clark and H. W. Clarke.

### New Mileage in Texas.

The law authorizing the consolidation of various railroads in Texas, it is cal-

culated, will result in the construction of about 500 miles of new line within the next two years. The Houston & Texas Central, it is understood, will build to Lampasas, as it will acquire the Austin & Northwestern and branches. The Austin & Northwestern division will be the one extended. The Southern Pacific will build connections between the Sabine & East Texas on the Texas Trunk Railroad, which it is authorized to acquire, while the St. Louis Southwestern will construct an extension of the Tyler Southeastern, which it is authorized to absorb, to Beaumont. The Gulf, Beaumont & Kansas City will be merged into the Gulf, Beaumont & Great Northern, which contemplates the extension of its line.

### Improvements in Baltimore.

The Pennsylvania Railroad Co. is considering the idea of utilizing steam-power in operating its freight cars through Baltimore from what is known as President Street Station to the northern section of the city. At present these cars are transferred by animal-power.

The company is rebuilding its President Street depot, which was partly destroyed by accident several months ago. The new structure will be 511 feet long, seventy feet wide and contain two tracks, besides offices for the representatives of the company at this point.

### To Buy the Carolina & Northwestern.

J. H. Marion of Chester, S. C., who is said to represent a syndicate, has recently made an offer for the interest of York county, S. C., in the Carolina & Northwestern Railroad, extending from Chester to Lenoir, N. C., a distance of 108 miles. This line is narrow-gauge and is operated by a company which is independent of any of the other systems in the South. Mr. Marion states that if the syndicate purchases the line it will probably be changed to standard-gauge and be extended to some road in Tennessee.

### More Cars for Illinois Central.

The Illinois Central Company has determined to add a number of Pullman cars to its service between Memphis and New Orleans, which will be among the finest yet operated by any railroad company in the South. Each car will comprise twelve sections, and will be elegantly upholstered and finished and contain the latest improvements. The sections will be much larger than those in an ordinary Pullman car, and will be arranged especially for summer travel.

### Railroad Notes.

William F. Deppe has been appointed assistant general passenger agent of the Cleveland, Cincinnati, Chicago & St. Louis Railroad, with offices at Cincinnati, Ohio.

The Sumter & Wateree Railroad Co. recently filed a mortgage in South Carolina for \$100,000, which is a part of the financial plan to build this road. The Sumter & Wateree will be a branch of the Southern road.

The Southeastern Railroad Co., recently organized in Florida, as noted in the Manufacturers' Record, will operate a railroad now built between Titusville and Enterprise, in that State. J. R. Parrott is vice-president of the company.

According to a dispatch from Mobile, Ala., there is a strong possibility that the Mobile & Ohio Railroad Co. will secure the contract for carrying mail from St. Louis to Cuba. It will probably place a special train in service which will make the run between St. Louis and Mobile in fifteen hours, the Mobile & Cuba Steamship Co. carrying it to Havana, from where it will be distributed.

## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

### HAVE USED ROUND BALES.

#### Satisfaction of Mill Men With the New Cotton Packages.

The baling of cotton, now that there are various methods being introduced, must necessarily depend to a considerable extent upon the system that meets the demands of the cotton mills. What the consumers want in this case must, of course, by virtue of the laws of trade, be secured. Improvements have been introduced which meet with their hearty favor, and for cotton put up according to their views they are willing to pay a higher price. Against this it is absolutely impossible to successfully contend.

The Manufacturers' Record has for ten or fifteen years persistently urged better baling. This is a question of supreme importance to the South—a question touching even the continuance of our monopoly of the world's cotton trade. We welcome and commend every system of improved cotton baling, and if the square bale in any form or any size can meet the best demands of the trade, we will be in favor of the square bale; but, so far as we can learn, the round bale has come to stay, and is a revolution which must change the whole system of cotton business. There are two round-bale systems now prominently before the public, with several others talked of. All of these seem to be very radical improvements over the old square-bale system.

In a recent issue of the Manufacturers' Record was published an extensive interview with Mr. William C. Lovering, a leading cotton-mill owner of New England, who gave the result of his investigations of the baling systems and of his strong commendation of the great merits of the "Round-lap" bale of the American Cotton Co.

When the round bale was first introduced several years ago, and before the machinery was perfected, the center or core of the bale was pressed too hard and the cotton would not unwind. This has long since been completely changed by the American Cotton Co., but the opponents of the round bale have still used this as an argument against it. This point was again raised after Mr. Lovering's recent interview, and a telegram was sent to him to that effect. To this he replied as follows:

"Whatever may have been urged against the American Company's round bale as to unwinding and sampling in the past, it is not true today. It is the testimony of innumerable manufacturers all over the world that it unwinds to the last fiber perfectly. And as to sampling, it is the only bale in the world that can be thoroughly sampled and any false packing detected at once."

Mr. T. W. Pratt, president of the West Huntsville (Ala.) Cotton Mill, who is also operating one of the largest cotton-gin plants in the world, and has been closely investigating and also handling round bales for the last two years, telegraphs as follows:

"After two years' experience with round bales of the American Cotton Co. as a manufacturer, I can positively state that my experience is that it can be sampled equally as well as the square bale. It saves 8 per cent. in waste and unwinds to the core perfectly, and saves much labor in opening-room. Mixed or false-packed bales are never found. For the planter, ginner and manufacturer it is the greatest invention of the age."

Mr. Charles B. Amory, treasurer of the Hamilton Manufacturing Co. of Lowell,

Mass., which has \$1,800,000 capital and 109,816 spindles, in a letter under date of March 16 says:

"It gives me great pleasure to give you my experience with the American Cotton Co.'s round bale. We had some difficulty with hard centers when we first commenced to use these bales, but this season we have not a single complaint to make. The bales unwind readily, the cotton is uniform, the weights hold out, the cotton has been evenly packed, not pressed too hard, tare not over 1 per cent., against 4½ to 5 per cent. old-style square bales, and we have considered cotton packed in the cylindrical bales worth fully one-quarter cent per pound more than cotton packed in the old way. We mean to use a great deal of this cotton next year if we are able to purchase it when we are in the market for cotton. We unwind this cotton by driving an iron pin through the center, hoist the bale to the ceiling of the opening-room, and the weight of the lap from ceiling to floor is sufficient to unwind the entire bale without being assisted by any other power."

Mr. Albert E. Swasey, treasurer of the Elizabeth Poole Mills of Taunton, Mass., writes:

"I have used the American Cotton Co.'s 'round-lap' bale, and am perfectly satisfied with it. I have had great success in running three or four-lap bales on an apron directly through a dust trunk and onto a breaker lapper, making a very even breaker lap. It is a saving of labor and power and a great saving of floor space. The result has been most satisfactory. Have had no trouble whatever with the bale running off to the last layer. I should be glad to use the bale entirely if the company were able to supply me with all I need."

Mr. Charles L. Lovering, treasurer of the Massachusetts Cotton Mills of Lowell, which, in addition to a mill of 118,000 spindles at Lowell and a capital of \$1,800,000, has a mill of 60,000 spindles at Rome, Ga., says under date of April 29:

"The Massachusetts Cotton Mills of Lowell have used about 7000 round-lap bales of cotton during the last three years—5500 bales put up since the American Company purchased the patents of other people, as I understand it. A machine has been devised at the mill for placing three bales on an apron, which unrolls the cotton and delivers it to another apron running a little faster than the one on the machine itself, from which the cotton falls directly into the feeder of the first lapper. The cotton is in excellent condition; the bale, staple and everything is ideal. It seems cleaner and freer from sand than cotton put up in the old square bale."

Mr. Franklin D. Williams, treasurer of the Fiskdale Mills, Fiskdale, Mass., says:

"The Fiskdale Mills have used several hundred of the American Cotton Co.'s 'round-lap' bales, and are entirely satisfied with them. We find the bales most convenient in handling, economizing storage space and opening perfectly."

And going somewhat more into detail, Mr. O. B. Truesdell, resident agent of the company at Fiskdale, says:

"According to our talk of yesterday I enclose you the photographs and blue prints showing how the round bales were exposed to the weather from February 14 to April 18, 1898, and (as I wrote my treasurer on May 2, 'I am opening today some of the cotton marked R. N. D. Round Bales) that have been out of doors from February to April and exposed to the ice, snow and rain. In the bales we have so far opened we find no damage, not even discolored, and no change in the weight of the bales, showing that if any

moisture did get into the cotton it dried out, while the square bales that were exposed the same as the round bales showed dampness to a large extent. The pictures are not as good as I wish they were, but they are all I have left; but they show just how the cotton was left out to the weather without any covering or protection of any kind, and when opened for use showed no moisture. This shows that cotton rolled up airtight will resist moisture, and so there will be no damage."

A few days later, under date of May 2, 1899, Mr. Truesell in another letter said:

"I might add to my last letter that if you would have those photographs enlarged they would show up much more plainly just how the cotton was left out to the weather, and if at any time I can give you any information about it, and how it worked after being thus exposed, I will gladly do so. I am interested in the round bale, or, I might say, in the American Company's round bale, as I have used those of other methods of putting up the round bales, but for many reasons that I might name I much prefer their method of baling."

These letters from some of the leading cotton-mill people of New England show the estimation in which the "round-lap" bale of the American Cotton Co. is held. What the great cotton-consuming mills demand in the way of a bale must necessarily be supplied, and all the opposition of vested interests cannot possibly stop progress along this line. The old fight, which since machinery was first invented has ever been waged, but which has always failed, of vested interests against new machinery, may be fought ever so bitterly, but the inventions which improve the handling of cotton and lessen the wastage between the producer and the consumer are destined to win, and all opposition and laws to the contrary cannot stay the inevitable success of such a movement. All round-baling-cotton methods which do away with double handling and the many unnecessary charges which now encumber cotton business are a long step in advance over the old systems, and if to these advantages be added the advantages to the mill of a system of complete unwinding, which does away with expensive systems now necessary in the mill, such a bale has a double advantage, in that it meets the requirements of improvement over the old baling system so far as lessening the handling, insurance and transportation is concerned on the one side, and on the other side by reducing expenses in the mill increases the demand from the mill for this bale.

These advantages on both sides are possessed by the "Round-lap" bale of the American Cotton Co., as so clearly set forth in these letters.

#### A Mill of 104,000 Spindles.

Columbia, S. C., is to have another cotton mill, the largest under one roof in the South.

A petition for incorporation has been filed under the title of the Olympia Cotton Mills, with capital stock of \$1,500,000, the amount to be paid in money, labor or property at such times and in such instalments as the directors may designate.

The incorporators mentioned are Messrs. W. B. Smith Whaley, Robert W. Shand, W. A. Clark, George A. Shields, W. H. Lyles and W. B. Lowrance.

The plant will be erected after plans and specifications now being prepared by Messrs. W. B. Smith Whaley & Co., who have in the past prepared plans for several of the largest and most successful mills in the South. The company's plans contemplate a main building 153x545 feet, four stories high, giving a total floor

space of 330,000 square feet, or about eight acres. The equipment of machinery will consist of 104,000 spindles and 2600 looms. The product will be print cloths, and 1200 hands will be employed.

Confirming this report Messrs. W. B. Smith Whaley & Co. write to the Manufacturers' Record as follows:

"It is proposed to build a mill something over 100,000 spindles capacity under one roof. Besides all necessary preparatory machinery, it will have 2600 print-cloth looms. Application for a charter has been filed, capital to be \$1,500,000. The mill will be driven by electricity, possibly generated by steam-power."

#### Wilmington's New Mill.

Mr. E. C. Holt of Burlington, N. C., lately noted as having completed arrangements for the erection of a 10,000-spindle and 500-loom cotton factory at Wilmington, N. C., has formed the company under the name of the Delgado Mills, with capital stock of \$250,000. The incorporators are Messrs. E. C. Holt, Robert R. Bellamy, J. W. Norwood, Marsden Bellamy, E. J. Powers and James H. Chadbourne, Jr. Contracts for buildings and machinery have been awarded. Main structure to be 130x253 feet, two stories, with a three-story wing; engine-room 30x48 feet, boiler-room 37x45 feet; buildings will cover three acres of ground. Contract for the erection of the necessary buildings has been awarded to Messrs. Zachary & Zachary of Raleigh, N. C.

#### Adding 10,000 Spindles.

Mr. S. B. Tanner, treasurer of the Florence Mills of Forest City, N. C., mentioned last week as to install 10,000 additional spindles, writes that his company has increased its capital stock from \$100,000 to \$250,000, all of which has been subscribed. The company has purchased a little over 10,000 additional spindles and sufficient looms to weave the product. The building is now ready for the machinery, and the power is in also. This additional machinery, with the 4000 spindles now in the mill, will fill it. Mills expect to start in full during July.

#### Cotton Movement.

In his report for May 19 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during the 261 days of the present season was 10,663,867 bales, a decrease of 100,777 bales from last season. Exports were 6,672,714 bales, a decrease of 237,674 bales; takings by Northern mills 2,087,681 bales, a decrease of 81,634 bales; by Southern mills 1,054,303 bales, an increase of 40,304 bales. The Southern mills are already credited with 33.55 per cent. of the total American takings this year.

#### Textile Notes.

The Henrietta (N. C.) Mills intend to put in additional spindles and looms.

Ossipee Cotton Mills, Elon College, N. C., will erect an addition to be used for a weaveroom.

Mr. J. L. Scott is mentioned in connection with a knitting mill projected at Graham, N. C.

Mr. Edgar Love of Gastonia, N. C., and Mr. D. E. Rhyne of Lincolnton, N. C., will build cotton factory at Lincolnton.

The Sycamore Mills of Sycamore, Ala., has awarded contract for duplicate of its present 60x300-foot building, one story high.

Mr. James Turner of Philadelphia, Pa., has leased, will remodel and put in operation the Providence Woolen Mill at Elkton, Md.

The Trenton Cotton Mill Co. of Gas-

tonia, N. C., will build a No. 2 mill, to be about the equipment (3000 spindles) of present plant.

The Kinston (N. C.) Cotton Mills has purchased an additional 2000 spindles, which, when in place, will give the plant a total of 5200 spindles.

Dr. J. P. Ewing of Dillon, S. C., will establish a knitting factory to employ twenty-five operatives. An equipment of fifteen machines has been purchased, and is now being installed.

The mill company formed at Dallas, Ga., referred to last week, will be known as the Paulding County Cotton Mills. The company will also erect a cottonseed-oil mill in addition to cotton factory.

Mr. E. P. Auger and others of Corinth, Miss., have incorporated the Southern Knitting Co., with capital stock of \$50,000, to engage in the production of knit goods, establishing at first a \$10,000 mill.

The Abbeville (S. C.) Cotton Mills has received an order from China for 4000 bales of cloth. The aggregate number of yards will be 3,200,000, or 800 yards to the bale of 36-inch goods of three yards to the pound of cotton.

Messrs. R. G. Weldon & Co. of Wilsonville, Ala., contemplate erecting a mill for the production of underwear, hosiery and cotton rope. The firm is now asking manufacturers of machinery to submit prices and full information.

The Glencoe Mills of Burlington, N. C., has been incorporated to succeed the Glencoe Cotton Mills. The company operates 3536 spindles and 186 looms, capital stock being \$112,000. Enlargements may follow the change of name.

The American Spinning Co. of Greenville, S. C., held its annual meeting last week. The officers authorized the expenditure of \$25,000 to buy additional machinery lately noted as to be installed. A dividend of 8 per cent. was also declared.

Messrs. A. L. James, John F. McNair and D. Bryant of Laurinburg, N. C., have organized a company, with capital stock of \$60,000, to build a cotton factory. It is proposed to increase the capital to \$100,000 as soon as circumstances will permit.

A company has been organized at Newton, N. C., and applied for incorporation, the members being Messrs. J. P. Yount, E. P. Shrum and R. B. Know. It is the intention to erect building at once and put in 2000 spindles. Contract for machinery has been awarded.

Robert Knox, E. P. Shrum and J. P. Yount of Newton, N. C., have organized a company, with capital stock of \$25,000, and applied for charter. The company purposed to erect a cotton mill of 1500 spindles, and the machinery necessary to equip has been purchased.

The Mossy Creek (Tenn.) Woolen Mills, reported last week as incorporated to continue an established plant, has ordered some new machinery. Will also put in plant for electric lighting; dynamo for 125 24-candle-power lights will be installed, and this has yet to be purchased.

The Hargrove Cotton Mill Co. of Shreveport, La., has been incorporated, with capital stock of \$250,000, by H. H. Hargrove, Jules Dreyfuss, Leon M. Carter, William Winter and others. The company intends to erect the cotton factory recently noted as projected at this town.

Mr. H. A. Smith of Lowell, Mass., has been appointed superintendent of the Coleman Cotton Mills at Concord, N. C., the company that was formed some months ago by colored men to be operated entirely by colored hands. An equipment of 5104 spindles and 150 looms

has been purchased and arrived at the mill. It is now being put in place.

Mr. J. D. Rutledge of Hagerstown, Md., contemplates erecting a factory for the production of cotton twine, cordage and similar goods. Information and prices on machinery are now solicited. The plant will probably not be located at Hagerstown, but at some other Southern point.

Mr. C. P. Burgwyn of Richmond, Va., has been investigating the water-power of the Appomattox river above Petersburg, Va. It is said that Mr. Burgwyn represents Northern capitalists who contemplate developing water-power for the operation of woolen mills also in consideration.

Mr. C. W. Ashcraft and associates, forming a cotton-mill company at Florence, Ala., as stated last week, intend to establish a 2000-spindle plant. It is the purpose to erect buildings large enough to hold 4000 spindles, so that the initial equipment may be doubled when it is found necessary.

Recent semi-annual dividends of Southern mills included the Pacolet (S. C.) Manufacturing Co., one of 5 per cent.; the Spartan Mills of Spartanburg, S. C., 3 per cent.; the D. E. Converse Co. of Glendale, S. C., 5 per cent.; the Tucapau (S. C.) Mills, 3 per cent., and the Clifton (S. C.) Manufacturing Co., 4 per cent.

Messrs. Ashworth & Beard, noted last week as establishing a knitting mill at Kernersville, N. C., will operate as the Elmira Hosiery Mills, Dr. W. C. Ashworth being president, and R. Bruce Beard, general manager. The company is placing machinery for an output of 100 dozen pairs of men's and women's hosiery daily, and when this is started will add machines increasing output to 250 dozen pairs daily.

Application has been made for a charter for the Spalding Cotton Mills of Griffin, Ga., with capital stock of \$100,000, and privilege of increasing to \$200,000. The company proposes to build a factory for the production of yarns, duck and osnaburgs, and to add later on the production of colored goods. Those named as incorporators include Messrs. Seaton Grantland, Douglas Boyd, J. J. Mangham, J. W. Mangham, Joseph D. Boyd and W. J. Kincaid.

The new Richmond Spinning Co. of Chattanooga, Tenn., recently reported, has met and elected officers, they being Mr. E. G. Richmond, president; David Giles, vice-president; Morgan Llewellyn, secretary-treasurer. The directors are the president and vice-president, Xenophon Wheeler, Willard Warner, Augustus Raht, Dr. R. T. Isbester and Arnold B. Sanford, the latter of Boston, Mass. The company is now having plans and specifications prepared for its 120x250-foot building, in which will be installed 10,000 spindles and complement for the production of fine yarns. Probably 250 hands will be employed.

The newly-incorporated Midland Hosiery Co. of Lynchburg, Va., mentioned last week, has secured a building 40x100 feet, two stories high, to which it will add another structure of the same size; also a one-story building to be used for dyeing plant. The company expects to install 150 knitters and start with a capacity of 500 dozen pairs of hose daily. The capital stock is \$50,000, fully paid in. This enterprise was started in an experimental way several months ago with twenty machines, and the \$50,000 company is the development. Mr. J. G. Burton is president; Geo. R. McAuslan at Providence, R. I., secretary-treasurer. New York office is at West Broadway and Beach street.

## COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

## Oil-Mill Superintendents.

[Special Cor. Manufacturers' Record.]  
Cisco, Texas, May 19.

Mr. George T. Parkhouse, president of the Oil Mill Superintendents' Association, in discussing the coming convention of the organization at Waco, said that until the meeting at Houston two years ago the objects of the organization had been misunderstood, and it had met with considerable opposition. He said:

"Many of the mill-owners and managers could not apparently conceive of an organization of oil-mill superintendents that did not have for its object the raising of prices. It is a well-known fact, though, that the subject of salaries cannot be discussed at our meetings, either in the open or in the closed sessions. But we do expect, by giving each other the benefits of the experience of all, to gain the forefront of our chosen occupation, creating thereby a demand for the services of association members and in that way gaining the best and most remunerative positions. The wisdom of this plan is becoming more and more apparent in the list of applications we have before us, and still more so in the number of mill-owners who are now looking to this association for their superintendents. I want to say right here that some of these mill-owners have always been with us. The association is national in its aim, and we even have a member in Mexico. But we are not as well represented in other States as we should like to be. Some action will be taken, I think, at the meeting on June 13 to extend our work into other States more thoroughly. We believe we will have a fair representation from the East this year, and we have extended to oil-mill superintendents everywhere an invitation to meet with us."

## The Market for Cottonseed Products.

New York, N. Y., May 23.

Slack trading still continues a feature of the cotton-oil market, but prices remain unchanged. The general situation presents about the same aspect as a week ago, with the important exception that receipts are considerably less, thus checking local accumulation. There can be no doubt that the moment the long-predicted demand presents itself, or the expected advance in lard, cotton-oil prices will be stimulated and the higher prices maintained until new-crop oil is offered. With regard to the lard market no improvement has been made, 5.17½ cents being quoted for July delivery, Chicago. Tallow is strong and advancing, 4½ cents being asked, but owing to the light supplies and the strong interest in the article, higher prices are expected. This feature is undoubtedly helpful to cotton oil, especially off grades. Faith in the future of cotton oil has not waned, although it is conceded that holders are weary of the long and unexpected wait. Prices are in the main well maintained, and, with the exception of an occasional small lot pressing for sale, no concession from current quotations is reported. The low price of lard proves a barrier to the manufacture of the compounded article, and in this respect the wiseacres of the trade have been much disappointed, inasmuch as it was not considered probable that the artificial conditions which have controlled lard should be so long maintained. The pronounced decrease in hog supplies would again indicate that the lard market untrammelled would advance. But

this is unfortunately governed by the attitude which the packers assume with regard to the provision market. It is generally conceded that stocks in the country are small, the slowing up in arrivals at this point giving evidence of the fact. It is also certain that the demand from consumers abroad is maintained on a scale heavier than at any previous period, a circumstance which is in part borne out by the increasing interest displayed in cotton oil by shippers, although at prices not yet equal to the views of holders, who steadily decline bids less than current figures. These conditions undoubtedly tend to strengthen the market, giving assurance that the long wait will be rewarded by a realization of the prediction so often made within the past two months with regard to an active export trade and on a higher basis of prices. Reports just received from New Orleans are to the effect that the market is picking up, several large lots just having changed hands, a lot of 3750 barrels of off selling at 23 cents, while sales are reported here of 2000 barrels at 23½ to 24 in lots, according to grade. The following are closing prices: Crude, 20 to 22 cents; crude, loose f. o. b. mills, 18 to 19 cents; crude, loose f. o. b. mills, 14 to 16 cents; summer yellow, prime, 25 to 25½ cents; summer, choice, 26 cents; summer, off grades, 23½ to 24½ cents; yellow, butter grades, 27 to 30 cents; white, 29 to 30 cents; winter yellow, 29 to 30 cents; salad oil, 30 cents, and 75 cents for soap stock, basis of 50 per cent. English refined Liverpool is steady at 15/3. Strictly prime meal is quoted at this market at \$21 to \$21.50; ordinary, \$19 and \$22.50; Boston, \$19 and \$22.50. There is very little business doing.

## Cottonseed-Oil Notes.

The cottonseed-oil mill now being erected at New Decatur, Ala., will, it is stated, be completed and in operation by September 15 next. It will have a capacity of eighty tons, and will be fitted with first-class machinery and all modern appliances for the manufacture of cottonseed products. Mr. J. A. Campbell is the general manager.

A meeting of the stockholders of the cottonseed-oil mill to be established at Bishopville, S. C., was held on the 16th inst. A constitution and by-laws were adopted and the following officers elected: President, James E. McCutcheon; vice-president, J. Frierson Woodwards; directors, J. E. McCutcheon, P. F. Woodward, R. C. McCutcheon, H. E. Hearon, T. E. Davis, John C. Shaw, J. S. Fisdale, W. W. Kelly and John B. Kelly.

Messrs. William H. Watkins and Thos. L. Chisolm (both officers of the Columbia Manufacturing Co., Ramseur, N. C.) have formed a company, of which they will be, respectively, president and manager, to build a cotton factory at Sanford, N. C. They propose installing 10,000 spindles and probably enough looms to weave the product. Work of erecting the enterprise is to be commenced at once.

The Bennettsville (S. C.) Manufacturing Co., recently formed, as noted some weeks ago, is about to erect its proposed factory. The main building will be one-story high, 424x123 feet, of size to accommodate 10,000 spindles, of which 5000 will be installed at the start. Mr. D. D. McColl is president; J. B. Pipkin of McColl, S. C., secretary-treasurer, and S. W. Oliver, superintendent.

The address of the Hudson Phosphate Co., now mining phosphate rock in Hickman county, Tennessee, is "Twomey," Tenn., and not Mobile, Ala., as reported in last issue of the Manufacturers' Record.

## PHOSPHATES.

## Phosphate Markets.

Office Manufacturers' Record,  
Baltimore, Md., May 25.

The local phosphate market shows a moderate volume of business, and brokers have been receiving some orders during the week for Tennessee and Florida rock. Prices are generally steady, and, in sympathy with other fertilizer ingredients, the movement is fairly active. The charters reported last week were as follows: Schooner J. W. Fitch, 1065 tons, from Tampa to Baltimore with phosphate rock on private terms, and in New York the schooner N. T. Palmer was taken to load phosphate at Pensacola for Carteret, N. J. The various reports from the Southern phosphate fields are very encouraging, and there is a marked improvement both in the output and demand, while prices everywhere show a decidedly firm character. The shipments from South Carolina, Florida, and Pensacola, which is the main port of foreign export for Tennessee phosphate, aggregated during the quarter ending March 31, 1899, over 223,000 tons of rock. The shipments for the present quarter bid fair to exceed this amount, and at the moment there is unusual activity at all ports, while the distribution by rail to interior points is very considerable. South Carolina rock is decidedly firm in tone, miners asking from \$4 to \$5, with the offerings very light at these figures. The movement at all mining sections in the Florida belt is showing very favorable features, and in Bartow, Citrus, Polk and other counties a number of new deposits are being opened. The new railroad now being built will open up some very rich deposits, which will be at once developed, the product to be shipped from Jacksonville as soon as deep water is secured. Florida miners are well sold up for the present year, and are now quoting prices mainly for 1900 delivery, which are firm at outside figures, both for land rock and pebble. In Tennessee the market continues active, with prices very steady at \$3.50 for domestic shipments guaranteed 75 per cent., and \$3.75 to \$4 for 78 per cent. export rock. The deposits of high-grade rock in Hickman county are still attracting attention, and several new deposits are now being successfully operated.

## Fertilizer Ingredients.

The market for ammoniates is fairly active, with prices generally firm at quotations. The demand from Eastern buyers is regular, considerable business being developed during the past week. The demand from Southern sources is light, as it is yet too early to expect much trade from that quarter. Western holders are very firm in their views, and stocks in that section are light, tankage being pretty well cleared up. There is now a good demand for blood for export. Sulphate of ammonia is steady, with a fair inquiry. Nitrate of soda is unchanged.

The following table represents the prices current at this date:

Sulphate of ammonia (gas).	\$2 87½ @ 2 90
Nitrate of soda.....	1 70 @ 1 72½
Blood.....	1 95 @ 2 00
Hoof Meal.....	1 65 @
Azotine (beef).....	1 90 @
Azotine (pork).....	1 90 @
Tankage (concentrated).....	1 70 @ 1 72½
Tankage (9 and 20).....	1 80 & 10 to 1 82½ & 10
Tankage (7 and 30).....	17 00 @ 17 50
Fish (dry).....	20 00 @
Fish (acid).....	12 00 @

## Phosphate and Fertilizer Notes.

The British steamer Peareth sailed from Fernandina on the 19th inst. for Stettin, Germany, via Norfolk with a cargo of 4200 tons of phosphate rock.

The schooner Horace W. Macomber sailed on the 15th inst. from Port Tampa

for Carteret, N. J., with 1506 tons of phosphate rock from the mines of P. B. & R. S. Bradley. The British steamers Benwick and Glendevon and the schooner William C. Tanner were loading cargoes of phosphate at the Port Tampa elevator on the 16th inst.

The schooner Fannie Reiche cleared from Charleston, S. C., for Baltimore last week with 800 tons of phosphate rock, and the schooner T. W. Dunn for Boston with 960 tons. The total shipments from Charleston to domestic ports from September 1 to May 17 amounted to 78,811 tons, against 73,450 tons for the corresponding period last year.

Continued activity in phosphate circles at Mt. Pleasant, Tenn., is now the rule. During the week the Louisville & Nashville Railroad carried out 550 cars of phosphate rock. All the companies are adding to their facilities for development. The National Acid Co. of New Orleans is erecting a large phosphate shed, and the Central Phosphate Co. is pushing its magnificent plant to completion. The demand for rock from both domestic and foreign sources is quite pronounced, while prices continue to appreciate.

It is stated that W. V. Wilson of Mt. Pleasant, Tenn., has made a recent discovery of high-grade phosphate rock near Spring Hill, and he and J. E. R. Carpenter have purchased the farm of W. G. Satterfield. The farm contains 242 acres, a greater part of which is phosphate rock. Mr. Wilson will on June 1 commence to develop the purchase, and later will put in railroad tracks to the mines. Mr. Wilson has also secured the D. F. Watkins property at Mt. Pleasant, which has rich phosphate deposits, and which he is now operating.

The consolidation of several leading fertilizer companies of the North, previously referred to in the columns of the Manufacturers' Record, was completed in New York on the 18th inst. The new company, which will include twenty-three concerns, will be known as the American Agricultural Chemical Co. It has an authorized capital of \$40,000,000, divided into \$20,000,000 6 per cent. cumulative preferred and \$20,000,000 common stock, of which \$17,000,000 of each will be issued at present. The following plants are included: Alexandria Fertilizer & Chemical Co., Alexandria, Va.; H. J. Baker & Bro., Brooklyn, N. Y.; Bradley Fertilizer Co., Boston, Mass., and Los Angeles, Cal.; Chemical Company of Canton, Baltimore, Md.; the Cleveland Dryer Co., Cleveland, Ohio; Cumberland Bone Phosphate Co., Boothbay Harbor, Me.; Crocker Fertilizer Co., Buffalo, N. Y.; Dredick Fertilizer & Chemical Co., Baltimore, Md.; Lazaretto Guano Co., Baltimore, Md.; Liebig Manufacturing Co., Carteret, N. J., and Wilmington, Del.; Lister's Agricultural Chemical Works, Newark, N. J.; Maryland Fertilizing & Manufacturing Co., Baltimore, Md.; Michigan Carbon Works, Detroit, Mich.; Milsom Rendering & Fertilizer Co., Buffalo, N. Y.; Northwestern Fertilizing Co., Chicago, Ill.; Preston Fertilizer Co., Brooklyn, N. Y.; the Quinnipiac Co., Boston, Mass.; Read Fertilizer Co., Brooklyn, N. Y.; Williams & Clark Fertilizer Co., Carteret, N. J.; Zell Guano Co., Baltimore, Md.; Slingluff & Co., Baltimore, Md. John F. Gibbons, vice-president of the Liebig Manufacturing Co. of New York, has been selected as president, and Robert S. Bradley of the Bradley Fertilizer Co. of Boston, Mass., and of the Williams & Clark Fertilizer Co. of New York, and William H. Grafflin, president of the Lazaretto Guano Co. of Baltimore, Md., have been selected as vice-presidents of the new company.

## MECHANICAL.

### The Robins Belt Conveyor.

The reduction of belt conveying to a scientific method of carrying material in

FIG. 1.

bulk has been of great interest to those whose work entails the problem of handling coal or ore. Three years ago Mr. Thomas Robins, Jr., read a paper on the subject before the American Institute of Mining Engineers, and shortly afterwards he incorporated the Robins Conveying Belt Co. for the purpose of carrying out and perfecting the ideas and suggestions contained in his paper. This belt-conveying machinery is now recognized as one of the standard methods of handling bulk material; its parts have been made interchangeable, and their capacity, durability and power requirements have been thoroughly tested. Instead of having a multiplicity of parts, this system has but two, the belt and the

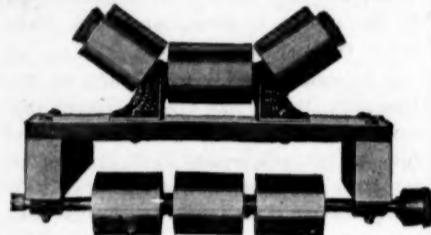


FIG. 2.

rollers. The conveying surface is separated absolutely from the highly-lubricated running parts, thereby permitting each to perform its function with the highest efficiency. The result is a system which insures a complete freedom from shutdowns, and it is the recognition of this feature as much as any other which has led to its adoption so generally. The material is carried on the belt without breakage or contact with the running parts, or noise, and is delivered at one or more points in quantities as great as 1200 tons per hour when desired. The belts can be run at a very considerable angle, although no flights are used. The power requirements are comparatively low, owing to lack of friction, and in cases where trestles must be used the lightest possible construction suffices, as the load is small but constant.

carried, serves to protect it from wear, while the extra plies of duck at the sides render them stiffer and cause the belt to conform readily to the troughed shape of the idlers.

After experiments with spool and cone

also in the handling of coal in pockets, power-houses and storage piles.

Fig. 4 shows a belt conveyor loading crushed stone from land to barges at Verplanck-on-Hudson, N. Y. The angle of the inclined belt is about twenty-four degrees. It loads 400 cubic yards an hour.

Fig. 5 shows a belt conveyor used in a receiving barge of the contracts for deepening the Danube river near Vienna.

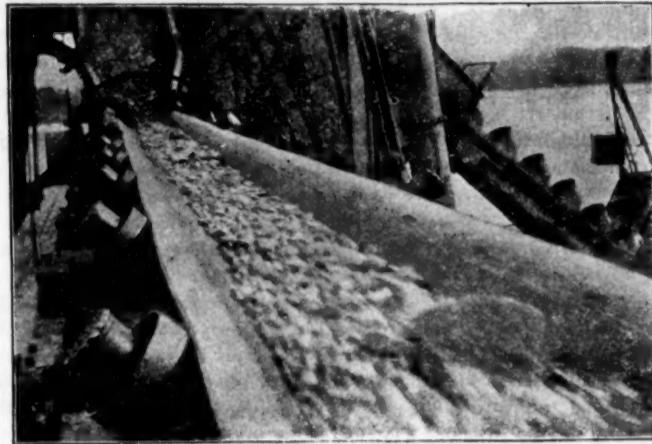


FIG. 5.

2 was selected as the standard idler on account of its manifest advantages, and this, together with the belt and the other

The material from several dredgers is brought to the receiving barge, whence it is carried to the bank by this belt con-

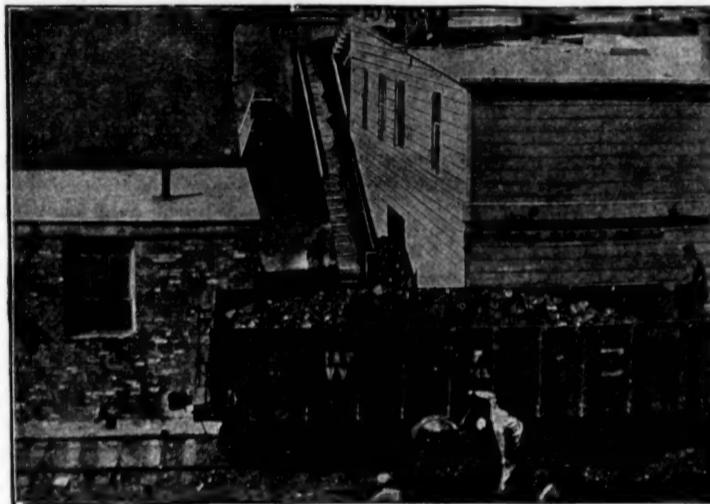


FIG. 6.

parts of the system, is protected by a conveyor, which is supported by a swinging world patents. The idlers need but little explanation save that in the process of

veyor, which is supported by a swinging world patents. The idlers need but little explanation save that in the process of

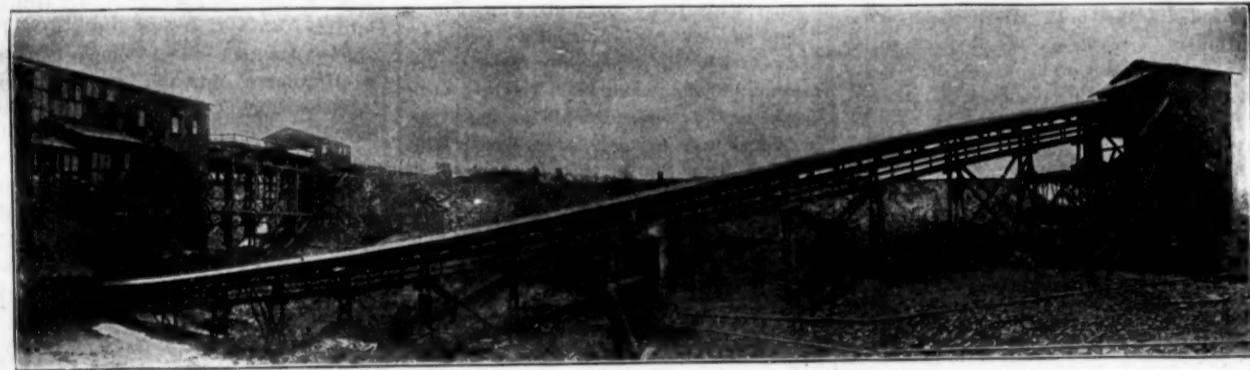


FIG. 3.

The cross-section of belt shown in Fig. 1 shows the design which has been finally adopted as the only one which has been

lubrication through the hollow shafting by the grease cups all bearings are rendered absolutely dustproof.

The four cuts of the belt in operation illustrate some of the various uses to which the system is adapted.

Fig. 3 is a photograph, and shows a long conveyor running under the screens and carrying off the slate and waste to the culm pile. The belt conveyor has been used extensively in the last year for carrying off waste from coal breakers and washeries and tailings and refuse from mining and refining plants. In this connection its ability to elevate and to deliver at any point along its length has been of great advantage, as it has been

pounds are constantly carried by it, with an occasional piece weighing 500 pounds.

Fig. 6 shows a hopper-bottom gondola car of 30-ton capacity delivering run-of-mine bituminous at cement mills. A chute under the track feeds onto a 24-inch belt, which delivers the coal to a pair of crushing rolls, which reduce it to a size suitable for automatic stokers. From the rolls it is carried on a 16-inch belt at an angle of twenty-six degrees within the boiler-house, where it is automatically distributed among ten storage pockets. Capacity of this system is forty tons per hour, and but little power and no special attendance is necessary.

Catalogue of the Robins Conveying

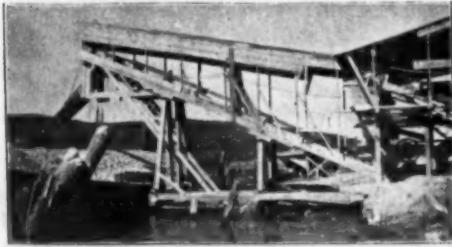


FIG. 4.

found to give satisfaction under all conditions. The reinforcement of rubber at the center, where the load is principally

Belt Co. may be had on application to 147 Cedar street, New York.

### A New Riveting Machine.

Manufacturers do not always realize the progress that has been made in the branches with which they are associated, yet at the same time improvements are being introduced constantly that should certainly be adopted.

Every manufacturer has more or less riveting to be done, and in many plants this is effected by the hand hammer. The hand hammer is slow and the ordinary workman is prone to stop needlessly, all of which entails loss of time and therefore increases cost of manufacture. Moreover, workmen frequently, when using the hand hammer, pound their fingers, thus producing another item that means cost to the manufacturer.

In order to facilitate riveting and avoid accidents there has been introduced the automatic elastic blow riveting machine (here illustrated), manufactured by the F. B. Shuster Co. of New Haven, Conn., formerly John Adt & Son.



A NEW RIVETING MACHINE.

It may be seen that the upper part of the machine has a cylinder, in which is a piston rod, the prolongation of which becomes the hammer head of the rivet. The pulley at the upper end imparts a rapid reciprocating motion to this cylinder, and consequently to the piston rod. This piston rod is acted upon by the air inclosed within the cylinder, as well as by the springs, which are also in the cylinder, with the result that by proper adjustment of the table upon which the work is placed, a light or heavy blow can be delivered as the operator desires. This machine strikes from 700 to 1100 blows per minute, each blow being delivered at the right spot and just where it should be; therefore the difference between this method and that of the hand workman is readily recognized. In fact, in ordinary practice this machine, in the hands of a good workman, will produce as much as four or five workmen can by the old method, and anyone understands what that means in the cost of the product.

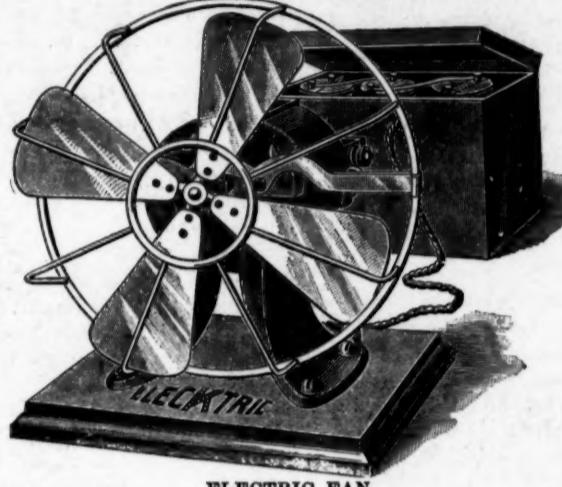
This machine has had a very extensive

sale, and nearly every manufacturer of bicycle chains at the present day finds it necessary to use this riveter. It was at first introduced for light work, but has been increased until at the present time there is a large sale for agricultural machinery, heading over rivets as large as three-eighths and one-half inch and giving the best possible results.

The manufacturer will send to anyone interested circulars and full information regarding this riveter, and states that many companies are using forty of these machines, and that in the hardware trade of New England it has almost entirely superseded hand riveting.

#### Electric Fans.

Electric fans for use on electric-light current are made by very nearly all the electrical-manufacturing companies, but fans to be used with a battery for places



ELECTRIC FAN.

where the current is not to be had have not been properly looked after. The fan illustrated is one offered by J. Jones & Son of New York. It is well made in all its parts, is easy running and meets the requirements well. The sizes it is made up in are eight inches and ten inches.

Write for further particulars.

#### Mechanical Drying.

The F. D. Cummer & Son Co. of Cleveland, Ohio, has made the subject of mechanically drying different materials its sole study for ten years, and successfully established itself in all parts of the world. It has hundreds of its dryers in operation drying all kinds of materials.

The Cummer Company manufactures two styles of dryers, and each style in eight different sizes, so that it can supply

factured by the F. D. Cummer & Son Co. resembles the style "F," but is designed for drying materials that are not easily injured, such as clay, rock, phosphate, sand, marl, infusorial earth, clay, etc.

The Cummer Company has dryers in operation in all parts of the United States drying different materials, and will, upon application at its Cleveland office, 413 The Arcade, be glad to arrange for anyone interested to see a dryer working.

#### The Norton Jacks.

The Norton jacks have attained a world-wide celebrity for their simplicity, durability and cheapness, combined with lightness, speed and perfect safety in service.

The Norton improved "sure-drop" track jack is made from forged steel and mal-

leable iron throughout, and is fitted with a patent tripping device which all railroad men say is "the best tripping arrangement ever applied to any track jack." An additional quality is that there is not a spring or loose pin in the whole jack.

Another jack is the automatic raising and lowering jack. The special quality of this jack is that it raises or lowers

with both the up and down stroke of the lever, the direction being instantly reversed by turning a spring in the side. It will work equally well on floor or head,



NORTON BALL-BEARING JACK.

and raises or lowers with absolute safety. It can be used for street-railway work as a track jack, but it is not equipped with a tripping device.



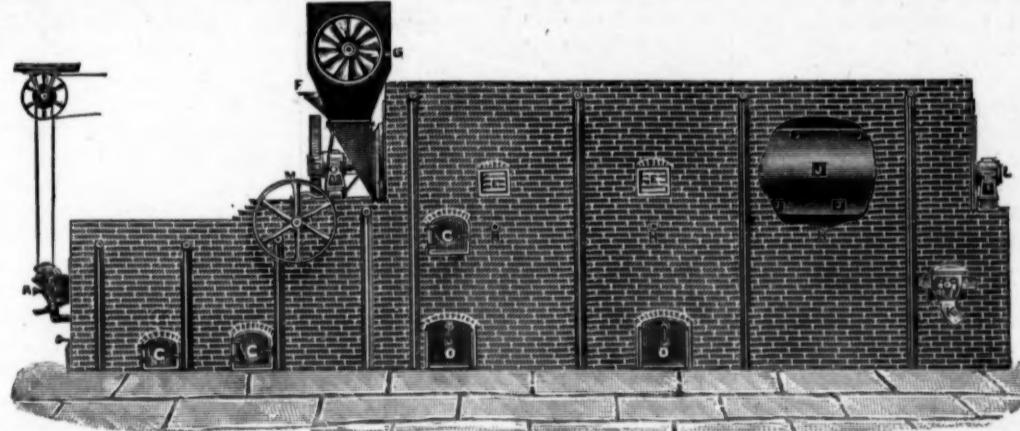
10-TON "SURE DROP" TRACK JACK.

The Norton "ball-bearing" bridge and wrecking jacks are able to do all the work of "hydraulic" or any other jacks, and are considerably cheaper, for they cost nothing for alcohol and but little for



STYLE N. A. BALL-BEARING JACK, 25 TONS.

repairs. They are exceedingly light to handle, easily operated, are perfectly safe under all conditions, can be used in any position, will hold the load without block-



SIDE ELEVATION OF CUMMER STYLE "F" DRYER.

a dryer to meet anyone's requirements. Each dryer is sold accompanied by a guarantee that assures success.

The accompanying cut shows a side elevation of the Cummer style "F" dryer. The machine is used for drying materials that will not support high temperatures, such as grains of all kinds, tobacco stems, lignite, coal, superphosphate, fertilizers of all kinds, chemicals, paint

leable iron throughout, and is fitted with a patent tripping device which all railroad men say is "the best tripping arrangement ever applied to any track jack." An additional quality is that there is not a spring or loose pin in the whole jack.

Another jack is the automatic raising and lowering jack. The special quality of this jack is that it raises or lowers

ing, never freeze up in winter or rust in summer, and are always ready for service.

Further particulars as to the points of these and other jacks can be had on application to A. O. Norton of 167 Oliver street, Boston, and if a practical test is wanted he will send a trial pair free of expense, to be returned at his expense if they are not found to be satisfactory.

#### LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

#### LUMBER MARKET REVIEWS.

##### Baltimore.

Office Manufacturers' Record,  
Baltimore, Md., May 25.

In nearly every department of the local lumber industry there is more or less activity, among the interesting features being the decided demand for lumber, with a corresponding stiffening of prices. In the line of North Carolina pine the movement continues uninterrupted, with a good local and out-of-town demand. Manufacturers and dealers report stocks light and the offerings readily taken. Sales during the week of North Carolina pine have been made at \$1 above the list of prices established on the 1st inst. Yardmen are good buyers, and boxmakers will soon be in the market for stock. There is also a fair inquiry from builders. In kiln-dried North Carolina pine there is a good foreign demand, several good orders coming in during the week. White pine may be written firm, with a fair demand for all desirable material. The hardwood business continues interesting, from the fact that there is an unusual demand, with a light supply, and great scarcity at milling sections. The demand for oak, walnut, ash, poplar and other woods is coming mostly from nearby towns, and dealers have a difficulty in filling orders promptly. The foreign export trade is unchanged, and shippers report a fair business so far for the present month.

##### Charleston.

[From our own Correspondent.]  
Charleston, S. C., May 22.

The movement in lumber circles at this and adjacent milling points is now showing a much greater volume of business, and the market for all wood products is improving. The demand for lumber from Northern sources is very decided, and mills here and at Georgetown have all they can do to fill orders on file. Business at Georgetown is very lively, and the various plants at that point were never in better condition for executing orders than at present. Reports from different points in the State are very encouraging. At Cheraw mills are selling all the lumber they can cut, and new mills are being projected. Some large sales of timber land have also recently been made in that section, and in the near future it is said a number of saw mills will be erected along the line of the Seaboard extension. Prices of lumber and other wood products are generally firm and higher. During the past week the following clearances have been reported: For New York schooner Jose Olaveri with 475,000 feet of lumber; schooner Edgar C. Ross with 300,000 feet, and steamship Algonquin with 50,218 feet. The steamship Navahoe cleared for Boston with 238,868 feet of lumber, and the steamship Saginaw for the same port with 7000 oak staves and other cargo, and schooner The Josephine for Baltimore with 528,600 feet of lumber. The rates of freight on lumber continue firm, with a moderate offering of tonnage.

##### Mobile.

[From our own Correspondent.]  
Mobile, Ala., May 22.

The week under review has been a busy one in lumber circles here, and shipments amounted to over 5,000,000 feet. The demand for lumber from Cuba, South and Central America, United Kingdom and Continent is quite active at the moment. During the week over 600,000

feet were shipped to Havana, 1,500,000 feet to South America and over 3,000,000 feet to the United Kingdom and Continent. The demand seems to grow greater as the season advances, and mills at this port and adjacent points in this State and Mississippi are all filled with orders. Stocks at mills are not allowed to accumulate, and a number of plants have enough orders to keep them sawing for sixty and ninety days. Prices everywhere are appreciating, and the general list of values seems to be at most points in this section well maintained. The timber trade is quiet at the moment; stocks of hewn are very much reduced, there being very little on the market, the price for the small offerings ranging from 13½ to 14 cents per cubic foot. Considerable sawn timber is moving, while prices continue firm for all desirable lots at 13 to 13½ cents per cubic foot, 40-foot basis. Contracts are made at 12½ to 13 cents. During the week the steamship *Dongola* cleared for Greenock, Scotland, with 18,122 cubic feet of hewn timber, 187,015 cubic feet of sawn timber and 1,248,044 feet of lumber, the whole cargo amounting to 3,709,688 superficial feet. The total shipments of sawn timber since September 1, 1898, amount to 3,707,679 cubic feet, against 1,991,228 feet for the corresponding period last year. In lumber the season's shipments so far amount to 52,684,960 superficial feet, against 39,167,836 feet last year. Cypress logs are in good demand at 4 to 9 cents per cubic foot, according to class. There is also a good demand for oak, ash, poplar, cottonwood and gum. Pine saw logs are in good request at \$5 to \$7 per 1000 superficial feet. Among the charters reported last week are the following: A Norwegian bark, 933 tons, from Mobile, Pensacola or Ship Island to Buenos Ayres with lumber at \$13.25; bark *Ethel V. Boynton*, 654 tons, from Pensacola to New York with lumber at \$6.50; British steamer *Thomas Weyman*, 1414 tons, from the Gulf to the United Kingdom or Continent with timber at 97/6, June-July.

#### Beaumont.

[From our own Correspondent.]

Beaumont, Texas, May 22.

The course of the lumber market in this section is towards greater expansion, and the demand for lumber is stronger than at any time in the history of the industry. While there is an unprecedented inquiry from all sections of the State, the demand is coming mainly from towns and cities. There is also a good business doing with North Atlantic markets, and several large sales have been made to New York parties during the week. The country trade at the moment is not so heavy, which is usually the case at this period of the season, but later on there will likely be a good demand from this source. The most liberal buyers at present from points beyond the State are dealers in the Indian Territory and Oklahoma, and some large shipments have recently been made to these points. There is also considerable business doing in the foreign export line, and shippers at Sabine Pass report the outlook as very encouraging for a good summer trade. The mills from Orange are shipping large quantities of lumber by barge to be reshipped at the Pass on steamers and other vessels loading for foreign ports. Prices for all grades of lumber are decidedly firm, with an advancing tendency, and buyers generally pay the advance readily. Stocks are not allowed to accumulate, and a number of mills have orders on file sufficient to keep them running for several months. The demand for timber lands continues without interruption, and nearly every week several large deals are reported. The latest deal

reported is the purchase by the Industrial Lumber Co. of all the timber holdings of the Lutcher & Moore Lumber Co. of Orange in Newton county, amounting to about 20,000 acres. It is stated that the consideration was in the neighborhood of \$200,000. These lands lie along the line of the Gulf, Beaumont & Kansas City Railway, and are convenient to the saw mills of the Industrial Company.

#### St. Louis.

[From our own Correspondent.]

St. Louis, Mo., May 22.

The situation here in nearly every avenue of the lumber industry is to a great extent in a very satisfactory shape, and the volume of trade shows considerable expansion in almost every line. The demand from out of town is fairly active, and country dealers are purchasing freely, but the demand from this source shows a slight falling off. All woodworking concerns are sending in their orders, and from car works, agricultural-implement factories and others there is a very decided demand, with prices firm and advancing. There is also a good inquiry from railroads for timber and lumber. The local demand for lumber from builders and others is active, the permits showing considerable increase, while builders are disposed to pay the advance in lumber without hesitation. Advices from all milling sections are favorable, and mills are generally working off their orders and getting ready for a new supply. Logging operations are being pursued freely, and prices for all hardwoods are firm, with stocks generally light. The trade in cypress is good, both here and at outlying points. Orders of considerable volume are on file at Louisiana mills, and shipments are moving freely. In hardwoods there is considerable scarcity of real dry stock, and dealers have lately been adding to their present stocks, filling up the gaps made by recent sales. There has been several arrivals of thick quartered oak, which is in limited demand. Inch and one-and-one-quarter-inch sells readily. The receipts of cottonwood are liberal, with a good demand from boxmakers, and prices firm and no signs of a decline.

#### Lumber Notes.

The receipts of lumber at New Orleans for the week ending May 19 amounted to 1,756,000 feet, and for the season 57,240,206 feet, against 68,355,000 feet last season.

The Tunis Lumber Co. had three large schooners loading at their docks in Berkeley, Va., on the 20th inst. This company, it is said, will cut 4,000,000 feet of lumber this month.

On account of the accumulation of orders at the saw mills at Elizabeth City, N. C., they are now running twelve hours a day. There is a very decided demand for lumber, mills being unable to keep up with orders.

The route for a new narrow-gauge road from Swanton to the "Rights of Man" and the Cunningham tract, two famous tracts of timber land in Garrett county, Maryland, comprising about 17,000 acres, is now being surveyed.

The extensive lumber firm of Willingham & Co. of Chattanooga, Tenn., have commenced operations on their planing mill to be erected in that city. The work on the mill will be pushed and the plant completed at an early date.

Mr. Adam Glass, the largest furniture dealer in Mobile, Ala., placed an order last week with Heywood Bros. and the Wakefield Company of Chicago for 1000 leather seat and back high-grade opera chairs for the new Mobile theater.

During the week ending the 17th inst. over 4,000,000 feet of logs arrived at

Chattanooga, Tenn., from the upper Tennessee, Clinch and Powell's rivers. This is 150 more rafts than has before arrived on any one tide for several years.

Mr. William R. McKenney of Petersburg, Va., sold on the 17th inst. the standing timber, estimated to be about 6,000,000 feet, on 991 acres on the Nottoway, in Brunswick county. Mr. Lee Cobb of Dinwiddie county, Virginia, was the purchaser.

It is said that a railroad will be built from Marion to Georgetown, S. C., by a syndicate which owns extensive timber lands between these two places. The Atlantic Coast Lumber Co., a corporation recently organized, is said to be interested in the road.

The schooner *Montana* cleared last week from Port Tampa, Fla., for Havana, Cuba, with 200,000 feet of lumber received by rail from Savannah. This is one of a number of shipments of lumber from Savannah the government is making to Cuba.

It is stated that a syndicate, with headquarters at Wilmington, N. C., and said to be backed by \$20,000,000 capital, is buying timber lands in Marlboro, Chesterfield and Darlington counties, S. C. Nearly 100,000 acres were purchased during the past week.

The Lafourche Planters' Saw and Shingle Mill in Assumption parish, La., was burned on the 19th inst. The mill had a capacity of 15,000 feet of cypress lumber and 20,000 shingles per day. The property was valued at about \$15,000, on which there was no insurance.

A charter was granted last week to the Eddy Lake Cypress Co. of Horry county, North Carolina. The capital stock of the company is \$20,000. The officers of the company are George Officer, president and secretary; W. M. Burgan, treasurer, and J. W. Little, general manager.

The extensive milling plant of the Ensign Lumber Co. at Worth, five miles from Sycamore, Ga., consisting of mills, dry-kilns, two engines, a large lot of lumber and workshop, were entirely destroyed by fire last week. The insurance carried was scarcely sufficient to pay for the lumber destroyed.

The steamship *Comanche* cleared last week from Jacksonville for New York with 500,000 feet of yellow-pine lumber, 7000 bundles of shingles and other cargo, and bark *Gyller* for Liverpool, England, with 331,594 feet of yellow-pine lumber. The total shipments of lumber and other wood products for the week aggregated over 4,000,000 feet.

Messrs. Saxton & Co., incorporators of the Knoxville Saw Mill Co., recently incorporated, are vigorously pushing the work on their new plant. Two of their new buildings are now nearly ready for the machinery, and the entire equipment has been purchased and shipped. A large portion of the output of the new mill will be hardwood lumber for export.

It is stated that the F. G. Oxley Stave Co. of Chattanooga, Tenn., has closed a contract with the Standard Oil Co. to furnish that corporation with about 20,000,000 staves, to be delivered in two years, deliveries of 10,000,000 to be made each year. The Oxley Company will erect three more new mills in East Tennessee, which will be larger than any of the present factories of the company, and will have the latest improved machinery.

The Union Lumber Co. of Atlanta, Ga., was organized last week, with a capital stock of \$200,000. The offices of the company will be in Atlanta, while the operations of the company will be confined to Colquitt and Thomas counties, where the

company owns 50,000 acres of fine timber land. The officers of the company are H. M. Atkinson, president; John Hightower, vice-president; William Heath, manager, and S. J. Bradley, secretary and treasurer.

At Beaumont, Texas, on the 15th inst. a deal was consummated by which the Industrial Lumber Co. and associate interests secured by purchase all the yellow-pine land in Newton county owned by the Lutcher & Moore Lumber Co. The tract or tracts purchased consist of an aggregate of 20,000 acres, the timber on which is the finest in the East and Southeast Texas long-leaf-pine district. The consideration is in the neighborhood of \$200,000.

The Crescent City Lumber Co. was incorporated on the 16th inst., with headquarters at Little Rock, Ark. The capital stock is \$600,000, of which \$400,000 has been subscribed. The officers of the company are: C. W. Gates, president; E. S. Crossett, vice-president; E. W. Gates, secretary; J. W. Watzek, treasurer; H. C. Rule, assistant treasurer, and John B. Jones, attorney. This company will put upon the market all the lumber on that body of 30,000 acres of timber land owned by the Lindsey Land & Lumber Co., located west of Little Rock, along the line of the Choctaw road, extending into Perry county. Mills will be put in along the line at once sufficient to saw and place upon the market all the timber on the tract.

#### MEMPHIS TO NEW ORLEANS.

#### A Company Formed with \$5,000,000 Capital—Reported to Be in the Interest of the Gould System.

Several times recently the Manufacturers' Record has referred to surveys being made for a new road along the Mississippi river in which Memphis and New Orleans parties were reported interested. It is now stated that the road is to be a part of the Gould system, connecting with the Iron Mountain line at Memphis and with the Texas Pacific at New Orleans.

Reid Northrup, a nephew of Jay Gould, for sixteen years associated with the management of the Gould properties, and for the same number of years the president of the American Refrigerating Transit Co., is the largest stockholder in the enterprise, and was elected president. T. Marshall Miller, a prominent attorney of New Orleans, was chosen vice-president, and S. P. Vickroy of St. Louis was made secretary and treasurer.

The road is capitalized at \$5,000,000, and Mr. Northrup says that all the stock has been subscribed. The line has been surveyed between Memphis and Natchez.

It is stated that some fine specimens of kaolin and copper have been found in Cleburne, Clay and Cherokee counties, Ala. The deposits of kaolin discovered are said to be very valuable and can be used to advantage in manufacturing fine chinaware. Judge W. E. Horne, who has been studying these deposits, says: "The deposit of kaolin is sufficient for any kind of plant that will use the product, no matter how extensively the clay is needed. As you know, the kaolin runs in pockets, and I feel confident that there is plenty of it in the State and especially in the neighborhood of where I have been. Yes, I believe the product is going to be developed. There is an Eastern concern now looking after working the clay, and it will not be long before the property where it is to be found will be in the course of development. Kaolin is a rare clay, but it is to be found in plenty in this State."

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# CONSTRUCTION DEPARTMENT.

**THE MANUFACTURERS' RECORD**  
 seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

#### ALABAMA.

Birmingham—Coke Ovens, Furnace Resumes, etc.—The Sloss Iron & Steel Co. has awarded contracts for the construction of 100 coke ovens to be erected at Brookside; furnace No. 1 has blown in, the \$25,000 repairs having been finished. The company is also opening a new coal mine at New Found, daily output to be from 400 to 500 tons.

Birmingham—Paving Contract.—Contract will be awarded to C. M. Burkhalter & Co. for about \$20,000 worth of street and sewer work.

Blossburg—Land Company.—The Blossburg Land Co. has been incorporated by J. C. Patterson, W. M. Clarke and D. J. Devenyne, with capital stock of \$25,000.

Dadeville—Oil Mill and Ginnery.—William Gray, F. A. Vaughan, A. C. Miller, Stone & Johnson, W. W. Hicks and J. F. Turner contemplate erecting a small oil mill and ginnery.\*

Florence—Barrel-stave Factory.—The Florence Milling Co. will erect a slack-barrel-stave factory, to be operated in connection with its flour mill; the addition for this work will be a dry-kiln, steam vat and sheds.

Florence—Water-power, Cotton Mill, etc.—It is reported that D. L. Foster has commenced work on the construction of a stone dam on Cypress creek to develop water-power for the erection of a \$100,000 cotton mill to be erected later. Other industries are also to be established. (This project previously mentioned.)

Florence—Cotton Mill.—The projected cotton mill referred to last week is intended to have 2000 spindles to start with; buildings will be erected large enough for doubling this equipment. C. W. Ashcraft can give information.

Greensboro—Cotton-oil Mill.—L. T. Bradford of Birmingham is investigating with a view of organizing a company for the erection of a cottonseed-oil mill in Greensboro for a Connecticut company.

Montgomery—Cottonseed-oil Mill.—George A. Folmar, 139 Jeff Davis avenue, contemplates the erection of a 15-ton cottonseed-oil mill.\*

Paint Rock—Lumber Plant.—The Gulf Red Cedar Co. has purchased site for \$1650 and will erect a large lumber plant.

Paint Rock—Flour Mill.—Paint Rock Milling Co. has contracted for 50-barrel flour mill.

Riderville—Saw and Planing Mills.—The E. E. Jackson Lumber Co. (office Thirteenth street and Ohio avenue N. W., Washington, D. C.) will rebuild its burned plant; new plant to produce 80,000 feet of flooring daily, and there will be a piece mill for framing lumber of coarser grades. All machinery necessary has been purchased.

Sheffield—Woodworking Factory.—A company has been organized, with paid-in capital of \$5000, to build a factory for making patent whiffle trees, spokes, hubs, wheelbarrows, etc.; J. C. Harris, president; A. S. Goldman, vice-president, and C. B. Ashe, secretary.

Sycamore—Cotton Mill.—The Sycamore Mills has awarded contract to Thomas L. Houser of Anniston for duplicating its present mill, which has an equipment of 7168 spindles; new building of brick, 60x300 feet, one-story.

Tallassee—Cotton Mill.—The Tallassee Falls Manufacturing Co. writes that its new additional mill (reported recently as under construction) will have 50,000 spindles (not 60,000, as was at first reported); the water-power development will approximate 10,000 horse-power.

Wilsonville—Knitting Mill.—R. G. Weldon & Co. contemplate the erection of a knitting mill for production of hosiery, underwear and cotton rope.\*

#### ARKANSAS.

Batesville—Flour Mill.—The Batesville Milling Co. will erect a flour mill of daily capacity of seventy-five barrels.

Fort Smith—Mercantile.—Incorporated: The Berry-Wright Dry Goods Co., capital stock \$150,000. D. Y. Berry is president.

Harrison—A. N. Miller, Mark P. Chardan, Con. P. Curran, R. L. Little and C. G. Seaver have incorporated the Trastour Zinc & Lead Mining Co., with a capital stock of \$600,000.

Little Rock—Lumber Company.—Incorporated: The Crescent Lumber Co., with C. W. Gates, president; E. S. Crossett, vice-president; E. W. Gates, secretary; J. W. Watzek, treasurer; H. C. Rule, assistant treasurer; John B. Jones, attorney. The capital stock is \$600,000, of which \$400,000 has been subscribed. Address the secretary.

Malvern—Gas and Oil Developments.—A company is being organized to bore for oil and gas near Malvern. D. D. Maddry, secretary, can be addressed for information.\*

#### FLORIDA.

Blue Spring—Phosphate Mining.—Chipman & Hazzard will build a fourth phosphate-mining plant.

Brooksville—Rice Mill.—B. S. Wright contemplates establishing a rice mill.\*

Cedar Keys—Brush Factory.—Chapman & Scott will establish a brush factory.

Fernandina—Fiber Factory.—Charles R. Weeks and Charles Miles of New York, Thomas Kydd and E. S. Loomis of Fernandina will erect a plaster fiber factory; building 140x140x18, now under construction, will be equipped with 85-horse-power steam plant and machinery for capacity of one to two tons daily; will employ fifty-eight hands. Address E. S. Loomis.

Jacksonville—Telephone-wire Conduits, etc.—The Southern Bell Telephone & Telegraph Co. has acquired rights from the municipality for the construction of underground conduits for its wires.

Leesburg—Moss Mill.—A moss mill has been established under the management of Dr. M. M. Hampton.

Tampa—Mattress Factory.—The Chicago Furniture Co. will erect a mattress factory.

#### GEORGIA.

Americus—Guano Factory.—The Americus Guano Factory will make extensive improvements, erecting new buildings and putting in new machinery; plans and specifications are now on view for use of prospective bidders. Address W. W. Franks, superintendent, Windsor Hotel.

Atlanta—Paper Mill.—The R. N. Fickett Paper Co. has been organized to deal in paper, and later intends erecting a paper mill and to manufacture bags, etc.; R. N. Fickett, president; E. I. Fisher, secretary; office at 32 Lloyd street.

Augusta—Gas Plant.—The Augusta Gas Light Co. will extend its mains.

Augusta—Packing Plant, Stock-yards, etc. G. L. Baker, J. D. Dawson, W. H. Warren, E. J. Lyon and others have incorporated the Georgia Cattle Export Co., with a capital stock of \$10,000, to maintain and operate a packing-house, stock-yards, etc.

Cartersville—Flour Mill.—The Cartersville Milling Co. has let contract for complete 100-barrel flour mill.

Colquitt County—Lumber Company.—The Union Lumber Co. has been organized, with a capital stock of \$200,000, to develop 50,000 acres of timber lands in Colquitt and Thomas counties; president, H. M. Atkinson; vice-president, John Hightower; manager, William Heath; secretary and treasurer, Sam J. Bradley, all of Atlanta.

Columbus—Syrup Factory.—The Williams Manufacturing Co. (Johnson Williams and others) has established a factory for refining sugar and syrup.

Dahlonega—Stamp Mill, etc.—The Dahlonega Consolidated Gold Mining Co., lately reported as to appropriate \$150,000 for the development of its mines, is installing a 120x850 pounds stamp mill, with a 35-ton per day chlorination plant; 100 operatives will be employed; the millhouse is 250x85 feet, besides chlorination building; mill has a capacity of 480 tons per day; H. D. Ingersoll, general manager.

Dublin—Mattress and Spring-bed Factory. R. C. Little is organizing a company for the manufacture of mattresses and spring beds.\*

Fitzgerald—Publishing.—The Fitzgerald Publishing Co. has been incorporated, with a capital stock of \$5000, to publish a daily newspaper.

Gainesville—Ice Factory.—The Gainesville Ice Co. has been organized to erect an ice factory to replace plant lately burned.

Georgia—Cotton-baling Company.—Incorporated: The Georgia & Carolina Planters' Co. of New York city, to deal in patents for baling cotton, etc.; capital \$3,500,000; incorporators, F. Rackeman, L. B. Thacher, R. Winsor, H. F. Straw, S. E. Peabody, all of Boston, Mass.

Griffin—Cotton Mill.—Application has been made for a charter for the Spalding Cotton Mills, with capital stock of \$100,000, to erect immediately a plant for the production of yarns, duck and osnaburgs. The incorporators are Seaton Grantland, Douglas Boyd, J. J. Mangham, Jos. D. Boyd, B. N. Barrow, R. W. Lynch and others. Probably Seaton Grantland will give information.

Macon—Drug Company.—The Taylor-Peek Drug Co. has been incorporated, with R. J. Taylor, president; T. C. Peek, vice-president and manager; E. N. Jelks, secretary and treasurer, to conduct a wholesale drug business; capital stock is \$75,000, with privilege of increasing to \$150,000.

Rome—Fertilizer Factory.—The Virginia-Carolina Fertilizer Co. (Rome branch) will double the capacity of the present factory, thus making it 25,000 tons annually; new buildings will be erected and new machinery put in. W. W. Franks, Atlanta, Ga., is general manager.

Rome—Water-works Improvements.—The city will construct a filter plant for its water works, capacity of said filter to be 1,500,000 gallons every twenty-four hours. D. B. Hamilton, Jr., chairman of committee, can be addressed.\*

Warrenton—Cotton-oil Mill and Fertilizer Factory.—The McBurney Oil & Fertilizer Co. is in the name of the company reported last week as to be formed by B. L. Battle and others for the erection of an oil mill and fertilizer factory. The plant will have a capacity of fifty tons and cost about \$30,000.

Worth—Lumber Plant.—The Canda Lumber Co. has not yet fully decided, but will probably rebuild its burned plant.

#### KENTUCKY.

Campbellsville—Flour Mill.—Nell, Fleece & Co. have contracted for a 50-barrel flour mill.

Clare—Flour Mill.—E. G. Allen & Co. have let contract for complete 50-barrel flour mill.

Elizabethtown—Sumac Factory.—Hopkins & Co. of New Albany, Ind., will establish in Elizabethtown a sumac factory to employ thirty hands.

Lexington—Electric-light Plant, etc.—Improvements to the hotel of Phoenix Hotel

Co. will include installation of electric-lighting plant, refrigerating machines and steam-heating system; Jos. McWilliams Co. of Louisville, Ky., has contract to make the improvements.

Lexington—Electric-light Plant.—John L. Williams & Sons of Richmond, and Middendorf, Oliver & Co. of Baltimore, Md., who recently purchased the street railways of Lexington, together with the ice factory and electric-light plant of that city, will expend about \$100,000 in the improvement of the street-car system and in the improvement of the street-lighting plant. The International Trust Co. of Baltimore and the Continental Trust Co. are interested in the purchase and development of these properties.

Louisville—Tannery.—The Ohio Falls Oak Leather Co. will erect a tannery after plans by Dodd & Cobb.

Louisville—Mercantile.—The Bloom-Hess Company has been incorporated by Max Bloom, Irvin B. Hess and Charles Goldsmith; capital stock \$12,400.

Louisville—Ice and Cold-storage Plant.—Incorporated: The National Ice & Cold Storage Co., by Charles W. Inman, Samuel Ouerbacker and Frank T. Boone. The capital is \$40,000. The company will erect factory with a capacity of forty tons of ice per day, and sixteen cold-storage rooms. Address Samuel Ouerbacker.

Louisville—Distillery.—It is reported that Saunders and Lawrence Jones will erect a distillery.

Louisville—Coal and Lumber Company.—Robert C. Tevis, John Tevis, M. H. Miller, Chas. Bowser and R. W. Bingham have incorporated the Buckhorn Coal & Lumber Co. to conduct a general coal and lumber business; capital \$300,000.

Moscow—Flour Mill.—Charles J. Worth is remodeling his mill and increasing capacity to seventy-five barrels.

#### LOUISIANA.

Baton Rouge—Water Works, etc.—The city has voted affirmatively on the proposition to issue bonds to the extent of \$200,000 for public improvements, amount to be divided into \$55,000 for drainage and sewerage, \$40,000 for streets and paving, \$45,000 for City Hall and schools, \$10,000 for iron bridge, \$10,000 for levees and \$35,000 for water works; Robert A. Hart, mayor.

Crowley—Rice Mill.—The rice mill reported last week to be erected by J. E. Platt will be an 800-barrel mill and cost \$25,000. Forty operatives will be employed.

Jennings—Electric-light Plant and Water Works.—Efforts are being made for the construction of electric-light plant and water works. Address "The Mayor."

Lake Charles—Irrigation Plant.—The North American Land & Timber Co. will construct a canal for irrigation purposes to irrigate 15,000 acres of rice lands.

Lake Charles—Sugar Refinery, Cane Cultivation, etc.—The Lake Charles Sugar Co., Limited, has been incorporated, with capital stock of \$30,000, to manufacture sugar, cultivate cane, etc. The incorporators are D. R. Swift, A. Thomson, H. C. Drew, J. S. Thomson and J. B. Watkins; company's express purpose is to buy and put in operation a refinery now idle.

Lake Charles—Ship Canal.—A conference was held in the office of A. V. Eastman, general manager for the North American Land & Timber Co., during the week to hear the report of Prof. P. H. Philbrick on the survey of the proposed route for the building of a ship canal from Lake Benton to Sweet lake, both in Calcasieu parish. The purpose of the canal is to provide cheaper transportation rates for the marketing of rice and other products raised in the Lake Arthur region. The cost of the proposed canal will be about \$25,000 and its length about ten miles.

Westlake—Irrigation System.—Lock, Moore & Co. are constructing 4000-acre irrigation system.

#### MARYLAND.

Baltimore—Holloware Factory.—The Jones Holloware Co. will rebuild its plant recently burned, plans for which have been prepared by J. A. Lafferty. A large tinware-making and lacquering plant will be installed in the new buildings; cost \$10,000; Joshua Horner, president.

Baltimore—Brewery.—The Columbia Brewing & Ice Manufacturing Co. has been incorporated by William H. Kruger, Henry W.

Frese, G. Howard White, Max F. Gebhardt and C. Sanford Thompson, with a capital stock of \$150,000. Company will erect a brewery with annual capacity of 60,000 barrels of beer and ice plant of sixty tons a day. (This enterprise referred to lately.)

Baltimore—Transportation.—Chartered: The Chesapeake Launch Co., for transportation purposes, by Alfred C. Mason of Philadelphia, Stewart Waring and Mary E. Waring of Baltimore, Edith M. Smith of Berkley, Md., and Norman G. Smith of Davis, W. Va.; capital stock \$2000.

Baltimore—Ginger-ale Factory.—The Monumental Ginger Ale & Mineral Water Co. will change its name to the Dublin Company, with Bernard Duke, president; William Levy, vice-president, and George Hollander, secretary; will change location of plant and add the latest bottling machinery to present equipment.

Baltimore—Coal Company.—Benjamin Bissell of Harford county, John K. Shaw, Jr., E. Don Hoffman, William L. Cooney and Charles P. Coady of Baltimore have incorporated the Lonaconing Coal Co., with a capital stock of \$10,000.

Baltimore—Label Factory.—The American Label Co., which recently erected a three-story 70x220-foot factory building, has doubled its capital stock.

Baltimore—Increasing Capital.—The Maryland Telephone Manufacturing Co. (controlled by persons interested in the Maryland Telephone & Telegraph Co.) will increase its capital stock from \$20,000 to \$50,000; David E. Evans, president.

Baltimore—Mineral Waters.—The National Water Co., for dealing in mineral waters and other beverages, has been incorporated by George H. Miller, Daniel F. Banks, John M. Adams, Frank V. Moale and Charles F. Nolen. The capital stock is \$2400.

Baltimore—Airship Works.—The American Airship & Construction Co. has been incorporated by Louis H. Kromm, Edwin A. Miller, Maurice Martin, Henry T. Klosterman and Charles E. Grauel, with a proposed capital stock of \$100,000. The company intends to manufacture an airship invented by Louis H. Kromm of 214 East Cross street.

Baltimore—Drug Factory.—Incorporated: The Malay Remedy Co. for manufacturing pharmaceutical specialties; incorporators, G. A. Chase, B. L. Talley, E. C. Chase, H. F. Nordecal and C. S. Neilson; capital stock \$100,000.

Baltimore—Tinware Factory.—The American Enamelling & Stamping Co. (Matthai & Ingram branch) will erect an addition on a lot 148x300 feet, put in new machinery and employ 200 more operatives.

Cambridge—Barrel Factory.—The Cambridge Manufacturing Co. will issue \$35,000 in bonds and \$10,000 in stock.

Cumberland—Steel Plant, etc.—The Cumberland Steel & Tinplate Co. is increasing the capacity of its plant and making improvements necessitated by large government contracts for projectiles received recently.

Elkton—Woolen Mill.—James Turner of Philadelphia, Pa., has leased the Providence Woolen Mill; will overhaul and operate it.

Great Falls—Water-power Development, Electrical Plant.—Oscar T. Crosby of Washington, D. C., and Charles A. Lieb of New York city have secured options upon land and water rights on both sides of the Potomac river with a view of water-power developments and the erection of electric plants for transmission of power. It is stated that a company will be formed, to be a part of the electric railways and lighting combination recently effected in Washington, and that about \$1,000,000 will be expended on the proposed enterprise. The forces of the river are to be utilized in the same manner as has been done at Niagara Falls, by diverting the course of the water into flumes or canals, etc.

Oldtown—Bridge.—Commissioners of Allegany county, Maryland, and Hampshire county, West Virginia, propose constructing a bridge over the Potomac river at Oldtown, Md., touching West Virginia in the vicinity of Green Spring. It is estimated that the bridge will cost about \$10,000. Address "County Clerk of Allegany County," Cumberland, Md.

#### MISSISSIPPI.

Brooksville—Mercantile.—The Brooksville Mercantile Co. has been incorporated, with a capital stock of \$8000, by G. T. Heard, Edwin McMorries, R. D. Love and Watt Jones.

Coriat—Knitting Mill.—The Southern Knitting Co. has been incorporated for the manufacture of hosiery by E. P. Auger, E. B. Tucker, William H. Walters and others; capital stock \$10,000.

Durant—Electric-light plant.—W. C. Porter, McComb, Miss., will design plans for electric-light plant for Durant.\*

Greenwood—Cotton-oil Mill.—F. G. Kinney and others of Birmingham, Ala., will begin at once the erection of an 80-ton oil mill at Greenwood, as lately reported. All necessary contracts have been let.

Lake View—Construction Company.—Chartered: The Valley Construction Co., by Harry J. Armstrong, J. J. Murphy, William A. Percy and others.

Lexington—Oil Mill.—A company is being organized to erect a cottonseed-oil mill; over \$25,000 has been subscribed. H. S. Hooker and H. W. Watson can give information.

Pass Christian—Packing Plant.—The Pass Packing Co. has been incorporated, with a capital stock of \$10,000, by George H. Taylor, Frank Sutter, F. Adresen and others.

Summit—Electric-light Plant.—W. C. Porter, McComb, Miss., will design plans for electric-light plant for Summit.\*

#### MISSOURI.

Bloomfield—Churn Company.—F. A. Mabee, H. E. Miller and R. J. Jackson have incorporated the Ball Bearing Churn Co., with a capital stock of \$50,000.

Carthage—Foundry and Machine Shops.—Thompson & Schechner have installed new machinery, and will operate the Carthage Foundry and Machine Shops; thirty operatives employed.

Carthage—Stove Foundry.—The Parrot Stove Co. will be organized for the manufacture of stoves invented by C. French, who may be addressed for particulars.

Duenweg—Lead and Zinc Mines.—The Kansas & Missouri Zinc & Lead Mining Co. has been organized, with T. J. Widby, president; C. G. Lance, vice-president; T. J. Crowell, treasurer, and J. B. Woolbridge, secretary; has leased 40-acre tract of land and will develop it.

Fredericktown—Mining.—H. B. Cahoon, T. B. Sharp of Fredericktown, R. M. Stokes, Kennett, Mo., and others have incorporated the Madison County Mining Co., with a capital stock of \$2800.

Joplin—Zinc Mines.—L. B. Grant, 32 Nassau street, New York, has purchased a large acreage of zinc land at Joplin; it is intended to turn the properties over to a mining company, announcement of which will be made at a later date.

Joplin—Lead and Zinc Mines.—The Ajax Zinc & Lead Mining Co. has been incorporated, with a capital stock of \$150,000, by J. F. Wallach, A. S. Johnson, H. M. Brewer and others.

Joplin—Lead and Zinc Mines.—P. M. Black, R. F. Pickles, F. J. Ryder, M. D. Currier of Lawrence, Mass., and H. T. Chapman of Boston, have incorporated the Boston & Missouri Lead & Zinc Co. to conduct a general mining business; authorized capital \$500,000.

Joplin—Cornice Works.—The Coplan Galvanized Cornice Co. of St. Louis will remove its works to Joplin; company has acquired the Eagle Cornice Works in Joplin and will operate same until an entirely new factory can be erected; Geo. U. Berry, Joplin, vice-president.

Kansas City—Auditorium.—The New Auditorium Company has been incorporated, with a capital stock of \$225,000, by Alexander Fraser, D. S. Patterson and Milton Moore.

Kansas City—Land and Live-stock Company.—Chartered: The Vinson Land Co., by R. W. Hocher, W. S. Hocher, D. C. Woodson of Kansas City and C. T. Vinson of Cimarron, Kans.; capital stock \$15,000.

Kansas City—Fire Extinguishers.—Chartered: The National Fire Extinguishing Co., capital stock \$200,000, by W. F. Griffiths, Jr., J. H. Morris and M. G. Harman.

Lone Elm—Lead and Zinc Mines.—A company is being organized by C. G. Radcliffe (secretary and manager), W. C. Thomas and Jeff D. Plummer of Carthage, J. W. Radcliffe, John Kittle and others of Sioux City, Iowa, for the purpose of operating on the Granby Mining Co.'s land at Lone Elm; capital stock \$16,000.

St. Louis—Piano Company.—Chartered: The O. A. Field Piano Co., with a capital stock of \$50,000, by O. A. Field, G. D. Markham, Maria L. Field and others.

St. Louis—Brass Foundry.—A. Waycott, C. Stevens and T. Dunn have incorporated the Anaconda Brass Foundry Co. for the manufacture of brass metal castings, etc.; capital stock \$50,000.

St. Louis—Land Company.—The American Asphaltum Land Co. has been incorporated, with a capital stock of \$4000, by A. Busch, W. D. Orthwein and William F. Nolker.

St. Louis—Brewery.—The Gast Brewing Co. will erect a \$40,000 plant between Broadway and the Hall's Ferry road; structure to be five stories and 228x100 feet in dimensions.

St. Louis—Lead and Zinc Mines.—Incorporated: The Hamilton Zinc & Lead Mining Co., by Edward A. Kellar, J. A. J. Schultze, F. M. Estes, S. E. Alvord and S. A. D. Stringer, with capital stock of \$18,000.

St. Louis—Ticket Company.—The Mangat Ticket Co., capital stock \$5000, has been incorporated by Arthur Marshall, Noble W. Blake, Charles J. Blake and Fred Mangat.

St. Louis—Malting Company.—Incorporated: The William Goerger Malting Co., capital stock \$50,000, by William Goerger, W. Emil Goerger and G. Adolph Goerger.

St. Louis—Air-bed Factory.—The Lane Sanitary Air Bed & Cushion Co., capital stock \$50,000, has been chartered by John J. Lane, Jere D. Healey, William Klausmeier, Christian L. Schumacher, W. E. Berger, James F. Delen, Richard Kerens and Chas. T. Schumacher, to manufacture air beds and cushions.

St. Louis—Lead and Zinc Mining.—Incorporated: The Hamilton Zinc & Lead Mining Co., capital stock \$18,000, by E. A. Keller, Edwarsville, Ill.; J. A. J. Shultz, F. M. Estes, S. E. Alvord, St. Louis; S. A. D. Stringer, St. Clair, Mo.

St. Louis—Paper Company.—Incorporated: The Crescent Paper Co., capital \$5000, by H. B. Butts, Kate M. Butts and John A. Butts.

#### NORTH CAROLINA.

Burlington—Cotton Mills.—The Glencoe Mills has been incorporated, with a capital stock of \$112,000. This mill was formerly known as the Glencoe Cotton Mills, and operates 3536 spindles and 186 looms, which will in all probability be enlarged; R. L. Holt, general manager.

Concord—Cotton Mill.—The Coleman Cotton Mill is being installed with 5104 spindles and 150 looms; this machinery will not entirely fill the building, but it is the intention of the company to purchase the other later; H. A. Smith of Lowell, Mass., superintendent.

Durham—Tobacco Factory.—The American Tobacco Co. (W. Duke, Sons & Co., branch) will erect brick storage-house 312x114 feet; a 75-foot L; also will place two new boilers, increasing engines to 1000 horse-power, and install electrical-power plant.

Eaton College—Cotton Mills.—James N. Williamson & Sons will erect an addition to their Ossipee Cotton Mills, to be used for a weave room.

Enfield—Stemmer.—The Enfield Stemmer Co., reported lately, will build a house 60x120 feet, three floors, and equip it with an automatic dryer and orderer; W. H. McDonald, secretary.

Forest City—Cotton Mill.—Regarding the increase of capital and addition of machinery by the Florence Mills (noted last week), the treasurer writes that capital has been increased from \$100,000 to \$250,000, and a little over 10,000 spindles and looms to weave the product have been purchased. This addition will fill the mill, with the 4000 spindles now in place.

Gaston—Cotton Mill.—The Trenton Cotton Mills will erect another mill as large or larger than its present 3100-spindle mill; J. R. Withers, superintendent.

Graham—Knitting Mill.—A knitting mill will probably be erected. Address for information J. L. Scott.

High Point—Table Factory.—M. J. Wren has formed the Piedmont Table Factory for the manufacture of tables with a capital stock of \$10,000. D. A. Staunton is president, and E. A. Snow, secretary and treasurer.\*

Kernersville—Knitting Mill.—Dr. W. C. Ashworth and S. Bruce Beard (reported during the week as to establish a knitting mill) are installing machinery with a capacity of 160 dozen pairs of hose per day, which will be increased to 250 dozen pairs per day; will operate as the Elmira Hosiery Mills.

Kinston—Cotton Mill.—The Kinston Cotton Mills will install 2000 additional spindles, giving it 5200 in all; machinery purchased.

Kinston—Tobacco Stemmer.—T. E. Roberts & Co. have let contract to S. H. Abbott for erection of 40x50-foot three-story addition to stemmer.

Laurinburg—Cotton Mill.—A. L. James and others (recently reported as forming a cotton-mill company) have organized, with capital stock of \$60,000, which it is proposed to increase to \$100,000 as soon as circumstances will permit. John F. McNair and D. Bryant are also interested with A. L. James.

Lincolnton—Cotton Mill.—Edgar Love of Gastonia, N. C., and D. E. Rhyne will build a cotton mill.

Louisburg—Electric-light Plant, Water Works and Sewerage System.—The city is preparing to establish water works, electric plant and sewerage system, and would like to correspond with engineers and water-works contractors; J. M. Allen, William Bailey, committee.\*

Morganton—Land Company.—The South Mountain Land Co. has been incorporated, with a capital stock of \$60,000, by K. C. Menzler, J. M. Bernhardt, H. D. Abernathy and others.

Newtonton—Cotton Mill.—Robert Knox, J. P. Yount and E. P. Shrum have organized a company, and applied for charter, for erection of a 1500-spindle cotton mill; capital stock is \$25,000.

Salisbury—Bridge.—The Piedmont Toll Bridge Co. is organizing for the purpose of constructing a bridge; capital stock \$25,000. Those interested include L. S. Overman, D. R. Julian and T. H. Vanderford.

Salisbury—Electric-light and Power Plant.—The Salisbury Light, Heat & Power Co. has been incorporated, with capital stock of \$10,000 and privilege of increasing to \$100,000, its purpose being the construction of the electric-lighting plant recently reported as projected by E. B. C. Hambley, president of the North Carolina Power Co., to which franchise was granted. Those interested besides Mr. Hambley are Dr. Dillon Brown and J. G. White of New York.

Sanford—Cotton Mill.—A company will be formed to establish a 10,000-spindle mill, probably with facilities for weaving the product. William H. Watkins and Thos. L. Chisholm of the Columbia Manufacturing Co. of Ramseur, N. C., will be president and manager, respectively. W. J. Edwards of Sanford is also interested.

Washington—Cotton-oil Mill.—Mayo & Swindell will erect a small cottonseed-oil mill.

Wilmington—Cotton Mill.—The new 10,000-spindle and 500-loom cotton mill, recently reported as to be established by E. C. Holt of Burlington, N. C., and associates, will incorporate as the Delgado Cotton Mills, with capital stock placed at \$250,000. Contracts for buildings and machinery will be awarded at once.

Winston—Telephone Line.—The Mutual Telephone Co. has been organized to construct a line from Winston to Elkin, to Wilkesboro and to intermediate points, a distance of ninety miles.\*

Winston-Salem—Tannery.—I. F. Carley of Olean, N. Y.; W. T. Jackson of Boston and W. H. Jebb of Roulette, Pa., representing a company, are investigating with a view of establishing in Winston-Salem a tannery with a capacity of 250 buff hides per day and to employ about 200 operatives. Address Mr. Jebb.

#### SOUTH CAROLINA.

Aiken—Saw Mill.—Parker & Prenter will rebuild their saw mill, reported as burned.

Anderson—Laundry.—The Boys' Steam Laundry Co. has been incorporated by C. E. Cobb, F. B. Crayton, M. M. Matteson, G. Hall, J. C. Green and others; capital stock \$2500.

Anderson—Cotton Mill.—The Orr Cotton Mill will be organized, with a capital stock of \$300,000 or \$400,000, and erect a mill of 15,000 to 20,000 spindles, with necessary looms, etc., operated by electric-power.

Col. Jas. L. Orr of Greenville, S. C.; R. S. Hill and J. S. Brock of Anderson and others are among the stockholders. Address Col. Orr.

Bennettsville—Cotton Mill.—The Bennettsville Manufacturing Co., reported several months ago as incorporated, is about to erect 123x424-foot building in which to install 5000 spindles; will have room for 10,000 spindles; J. B. Pipkin of McColl, S. C., secretary.

Columbia—Educational.—Charter issued to the Columbia Business College; corporators, W. H. Newberry, F. J. Newberry; capital \$5000.

Columbia—Cotton Mill.—W. A. Clark, Geo. A. Shields, W. H. Lyles, W. B. Lawrence, W. B. Smith Whaley and Robert W. Shand have applied for the incorporation of the Olympia Cotton Mills, to have an authorized capital stock of \$1,500,000. The company intends to erect a factory of 104,000 spindles and 2600 looms, to be housed in a four-story building 153x545 feet in size, and to employ 1200 hands; product will be print cloths; mill to be driven by electricity, possibly generated by steam-power. Plans and specifications for the mill will be prepared by Messrs. W. B. Smith Whaley & Co., who

may for the present be addressed for information.

Dillon—Knitting Mill.—Dr. J. P. Ewing will establish a knitting mill; fifteen machines have been installed.

Eddy Lake (not a postoffice).—Chartered: The Eddy Lake Cypress Co. of Eddy Lake, Horry county, with George Officer, president; J. W. Little, treasurer, and W. M. Bingham, general manager.

Honea Path—Gin and Oil Mill.—The Honea Path Oil Mill Co., lately reported as incorporated, will erect a 20-ton cottonseed-oil mill, with a view of making it a 40-ton mill; ginnery will also be erected; T. H. Brock, president.\*

Leesville—Flour Mill.—C. D. Barr has awarded contract for the erection complete of a 35-barrel flour mill.

McColl—Hardware Company.—The Marlboro Hardware Co. has been incorporated; with a capital stock of \$3000, by T. B. Gibson and Edward H. Everett.

Newport—Cotton Ginnery.—J. R. Neisler of Rock Hill, S. C., will erect two 70-saw cotton gins in Newport.

Ridgeway—Flour Mill.—Wiley Team has contracted for a new 25-barrel flour mill.

Seneca—Compress.—The Seneca Oil Mill will erect a round-bale compress, as recently reported.\*

Spartanburg—Electric-power Plant.—Parties to whom street-railway franchise has been granted propose the erection of an electric-power plant to operate the system. F. D. McEwen of Charleston can give information.

Spartanburg—Cotton Mill.—The Arkwright Mills, operating 10,000 spindles and 350 looms, is making general improvements and adding new machinery.

Spring Hill—Phosphate Mines.—W. V. Wilson of Mt. Pleasant and J. E. R. Carpenter have purchased 242 acres of phosphate land at Spring Hill from W. G. Satterfield, and will develop it.

#### TENNESSEE.

Athens—Electric-light and Power Plant.—Incorporated: The East Tennessee Light & Power Co., for manufacturing electric-light and electric motive-power; incorporators, W. R. Hall, J. E. Hall, B. M. Brewer, H. S. Bosler and W. B. Swaney; capital stock \$10,000.

Bristol—Telephone System.—The Virginia & Tennessee Telephone Co. has been chartered, with a capital stock of \$50,000. The company owns a number of exchanges in Southwest Virginia, and proposes to buy and operate a number of others connecting at Bristol with the People's Telephone Co. of Knoxville, which operates in East Tennessee.

Bristol—Coal and Iron Mines.—The Interstate Coal & Iron Co. has been incorporated, with B. S. Clark of New York, president; George M. Holstein of Pulaski City, Va., vice-president; Thomas Clyde of New York, secretary-treasurer. It is the intention to purchase and develop coal and iron properties in the country contiguous to Bristol. It is reported that all the lands of the Virginia, Tennessee & Carolina Steel & Iron Co., which are principally located in Virginia, Tennessee and Carolina, will be purchased and developed at once. The capital stock is \$900,000.

Bristol—Increasing Capital.—The Reynolds Tobacco Co. has increased capital stock from \$100,000 to \$150,000.

Brownsville—Cotton Mill.—Efforts are being made for the establishment of a cotton mill, as recently reported. Address W. Hall Burton.\*

Brownsville—Water Works.—The city will issue \$15,000 of bonds (not \$25,000, as recently reported) for improving its water-works system. It is proposed to put in air compressors, build steel tower sixty feet high and erect tank of 50,000 gallons capacity and extend mains. Address J. E. Carter, recorder.

Chattanooga—Planing Mill.—Willingham & Co. are about to erect their proposed planing mill.

Chattanooga—Stave Mills.—The F. G. Oxley Stave Co. will erect three or four additional mills within radius of fifty to eighty miles of Chattanooga, capacity of each plant to be 10,000 to 20,000 staves daily.

Chattanooga—Carriage Factory.—T. I. Wilson will enlarge his carriage factory; new building for same will be erected (owner) by J. K. Ottley of Atlanta, Ga., after plans by Adams & Bearden of Chattanooga.

Chattanooga—Pants Factory.—The Park Woolen Mills has added sixty new sewing machines to its pants department, making

115 in all; seventy-five more hands will be employed, increasing output more than double.

Dayton—Lime Company.—Incorporated: The Buquo Lime Co., capital \$5000, by H. H. Buquo, M. J. Buquo, M. A. Buquo, J. S. Buquo, G. C. Buquo and Helen Buquo.

Ducktown—Copper Mining.—The Tennessee Copper Co. is sinking two new shafts and adding machinery.

Hickman County—Phosphate Mines.—The Meridian Phosphate Co. of Meridian, Miss., has commenced the development of mines in Hickman county.

Knoxville—Saw Mill.—The Knoxville Saw Mill Co. has been organized, and will erect a saw mill. Address care of Saxton & Co.

Knoxville—Coking Process.—The Tennessee Coke, Coal & By-Product Co. will be organized to control the Keneva process for the States of Tennessee and Alabama. Gen. John T. Wilder, R. W. Austin and Col. C. C. Howell of Knoxville and Gus A. Dreutze of Frankfort, Tenn., are interested.

Litton—Flour Mill.—J. L. Hodge & Sons will erect a 30-barrel flour mill; contract awarded.

Loudon—Flour Mill.—Horne & Goans will erect a 50-barrel flour mill.

Madisonville—Flour Mill.—The Eagle Flouring Mill Co., capital \$7500, has been incorporated by J. May, W. H. Smith, W. F. Leneir, J. L. Wilson, H. T. McKeehan, T. S. Mathews, J. C. Fryar, M. A. Hunt, J. S. Byrd and A. L. Carter.

Mosheim—Telephone System.—The Mosheim & Lick Creek Telephone Co. has been incorporated for the construction of telephone system in Green county by F. M. Bible, M. H. Kent, H. C. Myers, Noah C. Bible and J. W. Cloyd.

Mossy Creek—Woolen Mill.—The Mossy Creek Woolen Mills (mentioned last week) has ordered new machinery, and will buy electric-lighting equipment.\*

Nashville—Heating Company.—The Standard Heating & Boiler Co., capital \$25,000, has been incorporated by H. T. Sinnott, A. J. Dyer, J. W. Smith, S. M. Sinnott and H. M. Smith.

Nashville—Implements.—Incorporated: The C. D. Smith Co., to deal in agricultural implements, by C. D. Smith, L. T. Brawer, M. K. Peck, C. D. Jones and C. D. Hutchings; capital \$50,000.

Roellen—Flour Mill.—Tom and Ben Hobday will erect a large flour mill.

Shelbyville—Wool-carding Factory.—J. F. Boyd is proprietor of the Shelbyville Wool Carding Factory, lately reported as to begin operations. The company manufactures wool rolls and wool batting. All the supplies and repairs needed have been purchased and no new machinery will be added.

Tennessee—Cotton-baling Company.—The Tennessee Planters' Co. of New York city, capital \$4,200,000, has been incorporated by C. S. Rackeman, J. D. Colt, H. M. Davis, C. F. Berry, F. Rackeman, all of Boston, Mass. The company's purpose is to deal in patents for baling cotton, etc.

Towney—Phosphate Mines.—The Hudson Phosphate Co. has commenced the development of mines in Hickman county.

#### TEXAS.

Colorado—Water Works.—The Colorado Water Works Co. has increased its capital stock from \$5000 to \$10,000.

Corsicana—Oil Wells, etc.—The Wild Cat Oil Co. has been incorporated for the development of oil wells, etc., by A. C. Sloan, W. M. Peck, L. M. Coates and others; capital stock \$12,000.

Devers—Saw Mill.—R. O. Middlebrook will erect a saw mill.

El Paso—Smelting Plant.—It is reported that George W. Jacobs of New York, representing New York capitalists, will incorporate a company in El Paso for the erection of a \$1,000,000 smelting plant which will have a pay-roll of \$15,000 per month. George Fitzgerald of El Paso can probably give information.

Gatesville—Flour Mill.—Incorporated: The Gatesville Roller Mills, capital stock \$10,000, by Benjamin Mosley, John T. Pert and Jas. R. Roby.

Henrietta—Bridge.—A steel bridge will be constructed across Little Wichita river, in Clay county. Address "County Clerk."

Houston—Sewerage System.—Consulting Engineer Potter has submitted a plan by which it is proposed to divert the city's sewerage from the bayou and dispose of it in filtering beds, the change of the system to cost in the aggregate \$250,000. Address "The Mayor."

Lytle—Water Company.—The Lytle Water Co. has increased its capital stock from \$20,000 to \$40,000.

Marshall—Incorporated: The Hysons Iron Mountain Springs Co., capital stock \$50,000, by E. J. Field, William H. Busy, William Sentz and J. P. Jones.

Mineola—Compress.—Incorporated: The Mineola Cotton Compress Co., capital stock \$30,000, to purchase and sell cotton and to construct and operate cotton compresses; incorporators, C. S. Meredith, A. Hicks and Charles T. Bonner.

Paris—Oil Mill.—Incorporated: The Lamar Cotton Oil Co., capital stock \$60,000, to purchase cottonseed and manufacture cottonseed products; incorporators, H. C. McDonald, F. H. Bailey and D. W. Cheatham.

Paris—Drug Company.—Incorporated: The Greiner-Kelly Drug Co. of Paris, Texas, capital stock \$100,000, by W. E. Greiner, C. D. Kelly, C. P. McCulian and others.

Rodney—Gin and Oil Mill.—The \$5000 company lately reported as to be incorporated by James W. Martin, H. L. Winters, J. L. Burkley and others for the erection of a gin and cottonseed-oil mill will be known as the Rodney Gin & Oil Co.

San Antonio—Incorporated: The Redmond Grocery Co., capital stock \$1000, by Charles and Bernard Redmond and M. C. Giller.

Texas—Cotton-baling Company.—Incorporated: The Texas Planters' Co. of New York city, to deal in patents for baling cotton, etc.; incorporators, C. W. Amory, Boston, Mass.; H. M. Atkinson, Atlanta, Ga.; S. N. Bourne, Manchester, N. H.; F. J. Baker, Dallas, Texas; J. B. Bowels, Houston, Texas; capital stock is \$3,000,000.

Turbo—Milling and Mining Company.—The Russian Milling & Mining Co. has been incorporated, with a capital stock of \$10,000, by G. E. Moffett, E. H. Rhoades and John D. Harris.

Turtle Bayou—Irrigation Plant.—The accurate facts regarding the Trinity Rice, Land & Irrigation Co. (reported last week) are that it will construct what is known as an overland canal for the purpose of irrigating rice lands, of which the company has purchased 15,000 acres. The plant will have a capacity for watering 20,000 acres. The canal will be 125 feet wide, with a pumping capacity of 100,000 gallons of water per minute. It is estimated that the cost of the canal and machinery will be about \$140,000. For particular address W. C. Moore, 305½ Main street, Houston, Texas.\*

Waco—Mercantile.—Incorporated: The Kemendo-Lackland Produce Co., capital stock \$20,000, by V. Kemendo, C. E. Lackland and C. E. Ridgell.

Wharton—Brick Works.—Carson Bros. will establish brick works.

Wharton—Sugar Refinery.—The erection of a sugar refinery is proposed, company to be formed for the purpose. G. C. Gifford can give information.

Yoakum—Cotton Compress, etc.—A round-bale compress and ginnery will be erected. Chas. W. Ordner can give information.

#### VIRGINIA.

Alexandria—Machine Shops.—The American Locomotive Appliance Co., for the purpose of developing and operating devices of John Milton and others in exhaust and draft regulators and other appliances for use in locomotive and stationary furnaces, has been incorporated; incorporators, John Milton (president), George J. Eamich of Loudoun, Va.; H. J. Closson, Isaac L. Johnson, John J. Wilmark.

Bridgewater—Flour Mill.—The Natural Falls Milling Co. has awarded contract for the establishment of its proposed flour mill, capacity daily to be 100 barrels.

Buchanan—Telephone System.—The Botetourt Telephone Co. will apply for charter, with a capital of \$2000. Contract has been awarded to J. C. Brewbaker to furnish all material and construct and equip a telephone line from Buchanan to Fincastle. Address J. Z. Schultz.

Danville—Paving.—The city has voted affirmatively on the proposition to issue bonds for \$1,000,000 to be expended on street improvements. Address "The Mayor."

Goshen—Iron Furnace.—The Empire Steel & Iron Co. (office in Empire Building, New York city) is improving the Goshen furnace preparatory to putting it in blast.

Kinsale—Canning Factory.—Frank M. Thrift is erecting a canning factory (reported last week) 60x36 feet, and to have a capacity of about 15,000 cases tomatoes.

Leesburg—Flour Mill.—W. S. Jenkins & Co. have awarded contract for the construction and equipment of their proposed flour mill; capacity daily to be 100 barrels.

Lynchburg—Knitting Mill.—The Midland Hosiery Co., mentioned last week, writes that it has organized as a stock company with \$50,000 paid in and expects to put in 150 knitters to produce 500 dozen pairs of hose daily. Present building is two stories high, 40x100 feet, to which will be added one of same size and a one-story structure for dyeing plant. Geo. R. McAuslan of Providence, R. I., is secretary-treasurer.

Monterey—Flour Mill.—The Monterey Milling Co. has contracted for 40-barrel flour mill.

Newport News—Power-house.—The Peninsular Electric Railway Co. has purchased site and will begin at once the erection of its proposed \$125,000 power-house.

Newport News—Abattoir.—It is reported that Armour & Co. of Chicago are investigating with a view of establishing an abattoir in Newport News.

Newport News—Sewer-pipe Laying.—Among the contemplated improvements to be made by the Newport News & Old Point Railway & Electric Co. is considerable sewer-pipe laying.

Newport News—Lithia-water Company.—The Palmer Springs Lithia Water Co. has been incorporated, with a capital of \$2500; A. A. Moss, president; John W. Read, secretary-treasurer.

Newport News—Packing Plant, etc.—Binder & Adlung of Washington, D. C., have established a pork-packing and sausage-manufacturing plant at Newport News.

Newport News—Land Improvement.—Incorporated: The Old Point Comfort Beach Land & Improvement Co., capitalized at \$50,000, and officers: President, Francis Seymour of Phoebe, Va.; vice-president, George M. Compere of Norfolk; secretary, George H. Lancer of Phoebe; treasurer, Anthony Heinkle of Phoebe.

Norfolk—Laundry.—The Monticello Model Laundry has been established in the annex of the Monticello Hotel with Albert Gerst, manager. The plant cost \$5000, and has a capacity for 14,000 pieces in ten hours.

Petersburg—Planing Mill.—Eaves & Hargrave are having plans prepared for their proposed planing mill.

Petersburg—Crate and Fruit-basket Factory.—The South Side Manufacturing Co., whose plant was recently burned at a loss of about \$28,000, will have plans made at once for rebuilding and doubling size, adding the manufacture of several new lines of goods. About 350 operatives are employed, which number will be increased owing to the enlarged plant.

Radford—Coke Ovens.—The Virginia Coal & Coke Co. will erect 250 new coke ovens on Toms creek.

Richmond—Remedy Company.—The Dr. Daniel Remedy Co. has been incorporated, with a capital stock of \$50,000. Dr. Silas Daniel is president; Burton G. Smith, secretary-treasurer and manager.

Richmond—Knitting Mill.—J. L. Hill states that he has no intention whatever of establishing a knitting mill.

Richmond—Soap Factory.—The Richmond Soap Manufacturing Co. has been incorporated, with J. B. Jackson, president; J. E. Meade, Jr., vice-president; W. J. Ferguson, secretary, and Charles W. Lewis, treasurer; capital stock \$5000.

Waynesboro—Nickel-plating Works.—The W. J. Loth Stove Co. (mentioned last week) is erecting a new two-story building 70x150 feet in which nickel-plating machinery will be installed.\*

#### WEST VIRGINIA.

Cedar Cliffs—Cement Works.—The Cumberland Valley Cement Co. has purchased the Cedar Cliff Cement Works and commenced repairs and expects to be grinding cement inside of a month; capacity will be increased to 1000 barrels daily. S. Dana Lincoln and P. J. Brennan of Washington, D. C., are interested.

Charleston—Dye Works.—Chartered: The National Dye Co., by W. E. Dodge of Flandersdown, Pa.; J. S. Skelton, Percy A. Warne, O. E. Ross and H. R. Basemore of Philadelphia, Pa.

Charleston—Stove Foundry.—G. H. Holliday of Manchester, Ohio, is reported as contemplating the removal of his stove foundry to Charleston.

Davis—Meat Company.—Chartered: The Union Meat Co., with a capital stock of \$25,000, by W. H. Gebott, George M. Smith, J. A. Houston, H. C. Newbury and others.

Fairmont—Gold Mining.—The Gold Mining Co. of Alaska has been incorporated by N. A. Clayton, G. F. Carroll, Thomas Reed and others.

Fairmont—Mercantile.—Incorporated: The Ruddy Instalment Co., capital \$50,000, by

T. J. Ruddle, F. T. Martin, M. G. Martin, W. J. Rowland and G. E. Lester.

Morgantown—Publishing.—The Acme Publishing Co. has been incorporated by C. L. Michael of Fairmont, S. H. Bowman, Philippi; H. L. Swisher, F. J. Brock and H. A. Christie of Morgantown; authorized capital \$50,000.

Morgantown—Oil Company.—Chartered: The Penn Oil Co., with an authorized capital of \$500,000, by A. L. Lowrie and C. W. Baker of Sewickley, Pa.; A. S. Guthrie of Toronto, Ohio, and T. D. Roff of McDonald, Pa.

New Cumberland—Gas Company.—William W. Speane, Joshua G. Spharre, George B. Walmer, William S. Semple and William H. Bugle have incorporated the New Cumberland Gas Co.

Parkersburg—Gas and Oil Wells.—The Bettman Oil & Gas Co. has been incorporated by Emma Bettman, Ida Bettman, Lou Zuir, Jr., of New York and J. G. McLure of Parkersburg.

Philippi—Coal Mines.—The Philippi Coal Mining Co. has purchased 3000 acres of coal land, as reported last week. The company already has mining property at Philippi consisting of all necessary cars, tipples, sidetracks, sidings and an electrical mining plant which has a capacity of 500 tons a day, which could be readily increased to 2000 tons. Alston G. Dayton and others are interested in this company.

Wheeling—Dynamo.—The committee on lights has asked the city council for an appropriation of \$4500 for new dynamo. Address "The Mayor."

Wheeling—Refrigerator.—Louis Niebergall is installing a 20-ton refrigerating plant; contract let.

Wheeling—Leather Manufacturing.—William Schwertfager, William B. Irvine, Jas. B. McKee, John W. Dean and Flora A. Wright have incorporated the Schwertfager Manufacturing Co. for the purpose of manufacturing and dealing in leather goods, such as saddlery; authorized capital \$100,000.

Wheeling—Window-glass Factory.—The Sandusky Window Glass Co. has been incorporated, with an authorized capital of \$50,000, by August Distelhorst of Tiffin, Ohio; George Dandy, Chas. Rolland, Henry Trunick and Nicholas Frolan of Pittsburgh, Pa.

Wheeling—Condiment Factory.—The Exley-Watkins Company has been incorporated for the manufacture of mustards, spices, catsup, flavoring extracts, etc., by W. H. Exley, Jr., C. H. Watkins, Jr., William P. McGavin and others; authorized capital \$300,000.

#### BURNED.

Aiken, S. C.—The saw mill of Parker & Prementer, near Aiken.

Alexandria, La.—F. F. Rogers Central Lumber Co.'s mills; loss \$8000.

Clearbrook, W. Va.—Cumberland Valley Railroad Co.'s grain elevator and station; loss \$3000.

Columbia, S. C.—The Columbia Pump Factory of Harris & Cole Bros.

Eagle Pass, Texas.—The Mexican International Railroad's depot; estimated loss \$50,000.

Fitzgerald, Ga.—J. N. Cason's planing mill; loss \$4000.

Jacksonville, Fla.—The entire plant of the G. H. Gato Cigar Manufacturing Co. in North Springfield; estimated loss \$15,000.

Lafourche Crossing, La.—G. J. Labarre's saw and shingle mills; loss \$20,000.

Madison Mills, Va.—J. A. Henderson's saw mill, near Madison Mills.

New Iberia, La.—John Emmers' brick-yards damaged by fire.

Rift, Ga.—Four dry-kilns of D. C. Jones. Worth, Ga.—Ensign Lumber Co.'s mills, etc.

#### BUILDING NOTES.

Americus, Ga.—Bank Building.—The Planters' Bank will erect a four-story pressed-brick and granite building 52x100 feet to cost about \$30,000; Charles M. Council, cashier.

Americus, Ga.—Bank Building.—The Planters' Bank will erect building, as reported recently; structure will be four stories high, of press brick and stone, for office and bank building; plans are now being prepared.

Atlanta, Ga.—Office Building.—George S. Lowndes will erect a seven-story building to cost \$17,000.

Atlanta, Ga.—Hotel.—An additional story is being added to the Aragon Hotel, and new furniture will be installed; Geo. W. Collier, Jr., manager.

Baltimore, Md.—Warehouse.—Erlanger Bros. will erect a six-story warehouse 40x150 feet, of brick, stone and iron; cost \$30,000. Bids will soon be asked.

Baltimore, Md.—Business Building.—John Hiltz has received contract at \$64,000 for the erection of six-story business building, lately reported, to be erected by O'Neill & Co. at Charles and Lexington streets. A separate power-house, boiler and heating building will be erected for lighting, heating and power.

Baltimore, Md.—Apartment-house.—J. E. Lafferty has prepared plans for apartment-house, to be erected at Eutaw Place and Laurens street by local capitalists.

Batesburg, S. C.—Hotel.—Dr. M. U. Boatwright contemplates the erection of a hotel.

Belleville, Texas—Roundhouse.—The Gulf, Colorado & Santa Fe Railway will erect a 24-stall roundhouse; L. J. Polk, general manager, Galveston.

Birmingham, Ala.—Stores, etc.—Capt. J. B. Webb contemplates the erection of a five-story brick, steel and glass building for stores and apartments; to use electric elevators, etc.

Bolivar, Tenn.—School Building.—The city will vote May 30 on \$10,000 of bonds for the erection of a school building. Address "The Mayor."

Boydton, Va.—Jail.—The B. F. Smith Fire-proof Construction Co. of Washington, D. C., was awarded the contract for the new Mecklenburg county jail at \$3793.

Braidentown, Fla.—Hotel.—Henry F. Curry has had plans made by Alex. Browning for the erection of a 40-room hotel.

Brunswick, Ga.—Opera-house and Office Building.—The opera-house and office building lately reported as to be erected by G. E. Counzeman will cost \$25,000; front will be of pressed brick, with Georgia marble trimmings, plate-glass windows, to have all modern improvements, including electric-light plant.\*

Chapel Hill, N. C.—Bank Building.—C. H. Norton of Durham, N. C., has contract to erect bank building in Chapel Hill.

Charlotte, N. C.—Residences.—Hook & Sawyer are preparing plans for residences for W. A. Basoni, J. W. Sheppard and W. C. Alexander.

Chattanooga, Tenn.—Residence.—W. M. Tolley will erect a \$5000 residence.

Chattanooga, Tenn.—Dormitory.—Grant University will erect a \$35,000 dormitory; Dr. J. H. Race, president.

Crystal Springs, Miss.—Hotel.—Scott Bros. of Hazlehurst have received contract for the erection of the proposed Chautauqua Hotel.

De Soto, Mo.—Store Building.—Knorpp-Walther Mercantile Co. expects to build a three-story brick building of thirty rooms.

Durham, N. C.—School.—City has awarded contract to C. H. Norton for erection of two-story 77x102-foot school building.

Fort Worth, Texas—Depot.—John Bardon has been awarded contract to erect the main structure for the new union depot.

Frostburg, Md.—School.—Sealed proposals will be received until 5th of June for the erection and completion, with or without steam heating, ventilation and plumbing, of State Normal School No. 2 at "Beall Park," Frostburg, Md. Separate proposals will also be received at the same time for steam heating, ventilation and plumbing for the same building. Revised plans and specifications may be obtained by application in person or by mail to the architect, Alfred Mason, No. 716 West Baltimore street, Baltimore, Md. Proposals will not be considered from other than bona fide contractors in the State. Usual rights reserved. Proposals must be enclosed in envelopes, sealed and indorsed "Proposals for Building State Normal School No. 2," or "Proposals for Heating, etc., State Normal School No. 2," and addressed to E. B. Prettyman, secretary of the State Board of Education, State Normal School, Baltimore, Md.

Gaston, N. C.—Business Block and Store Building.—Hook & Sawyer of Charlotte have prepared plans for a store building and offices of pressed brick, granite, structural iron, etc., to contain elevator, for T. L. Craig; Robert T. Rankin has contract.

Gaston, N. C.—Store Building.—John F. Love will erect a brick store building for the Gastonia Hardware Co.; Hook & Sawyer of Charlotte will prepare plans.

Greensboro, N. C.—Store Building.—Rev. W. L. Grissom will erect a three-story store and office building.\*

Greensboro, N. C.—Church.—Hoecker & Morris have received contract for the erection of a Catholic church building; will install hot-air heaters.

Greensboro, N. C.—Residence.—C. S. Watson has let contract to Hoecker & Morris for erection of residence; to use hot-water heating system.

Greenwood, S. C.—Residence.—D. J. Anderson has made plans and W. J. Moor is erecting a \$3500 residence.\*

Hancock, Md.—Mercantile Building.—P. T. Little will erect new mercantile building.\*

Jackson, Miss.—Hotel.—W. Chamberlin & Co. of Knoxville, Tenn., will prepare plans for hotel of thirty rooms to be erected at springs near Jackson.

Honey Path, S. C.—Business Block.—D. J. Anderson of Greenwood has prepared plans for brick block for J. W. and L. A. Brock and Dr. Shirley to cost \$10,000; specifications include plate glass, iron columns and lintels, tin roof. Mr. Anderson has also made plans for residence for J. C. Milford, to be of frame and cost \$2500.\*

Jackson, Miss.—Opera-house.—A \$40,000 opera-house, with roof garden, etc., will be erected after plans by W. Chamberlin & Co. of Knoxville, Tenn.; will want chairs, scenery, electric lighting, etc.

Knoxville, Tenn.—Dwelling.—W. Chamberlin & Co. have prepared plans for dwelling for B. R. Strong.

Knoxville, Tenn.—Church.—The First Presbyterian congregation will erect a \$30,000 building. Address Rev. James Park, pastor.

Lexington, Ky.—Hotel.—The Phoenix Hotel Co. has let contract to the Jos. McWilliams Co. of Louisville, Ky., for \$26,000 worth of repairs and improvements to its hotel; improvements will include electric-lighting plant, refrigerating machines and steam-heating apparatus.

Louisville, Ky.—Residence.—Mrs. F. M. Sackett will erect \$5000 addition to residence; plans by Clark & Loomis.

Manassas, Va.—Jail.—Prince William county has awarded the B. F. Smith Fire-proof Construction Co. of Washington, D. C., contract for new jail.

Mayfield, Ky.—Business Block.—S. B. Wright has let contract at \$11,000 to Chamberlin & Murray of Paducah for the erection of two-story 80x120-foot brick business block.

Memphis, Tenn.—Car Barn.—The Memphis Street Railway Co. will probably erect a new car barn later in the season.

Miami, Fla.—Business Block.—J. W. Watson will build a brick business block.

Mobile, Ala.—Business Building.—Spira & Plucus have contract to erect three-story building, of cut stone and highest style, after plans by Rudolph Benz.

Newport News, Va.—Business Buildings.—George E. Griffiths will erect a three-story brick structure 97x50 feet, with stone trimmings; a three-story store and office building will be erected by W. L. Fitzsimmons, who is agent for the parties erecting it, to be 50x97 feet, of buff brick, and cost \$10,000; Robert W. Willis of Hampton will erect a residence.

Norfolk, Va.—Residence.—H. L. Page will erect a \$10,000 residence.

Norfolk, Va.—Warehouses.—The Antilles Transportation Co. of New York city will erect mammoth warehouses at East Burton's Point; George E. Crater, Jr., New York city, attorney for company.

Raleigh, N. C.—Business Building.—W. W. Vass will erect a business building.

Rockdale, Texas—Parsonage.—D. S. Harris & Son have contract to erect parsonage.

Ruston, La.—Lodge Building.—The Knights of Pythias will erect two-story brick lodge building at cost of \$6000, as reported lately. Address E. L. Kidd.

South Pittsburg, Tenn.—Warehouse.—W. H. Wilson will erect a warehouse.

Statesville, N. C.—Courthouse.—Bids will be received by the board of county commissioners of Iredell county at Statesville until June 5 for the erection of the proposed courthouse, after plans by Hayden, Wheeler & Schwend. A certified check for \$2000 is required with each bid.

Trenton, Tenn.—Residence.—W. W. Wade will erect residence; plans by W. Chamberlin & Co. of Knoxville.

Washington, D. C.—Hotel.—T. E. Roessle will expend \$100,000 in improvements to the Arlington Hotel.

Washington, D. C.—Buildings.—Edgar C. Kellogg will erect twenty-one four-story houses, fronts to be of brownstone and brick, with copper trimmings, and three bathrooms in each house. George S. Cooper is preparing plans for four four-story dwellings, with stone fronts. Edmund K. Fox has awarded contract to W. L. Turner for residence 34x70 feet; B. Frank Meyers prepared

plans. H. A. Campbell has prepared plans for an apartment-house for D. D. Cameron, four stories, 75x66 feet, of mottled Roman brick and brownstone. S. Kahn, Sons & Co. are having plans prepared by Glenn Brown for the erection of a three-story, 39x64-foot store building, front of plate glass, iron and brick. Chas. W. King has had plans prepared for an apartment-house by N. T. Haller, to be four stories, 80x100 feet, of semi-fireproof construction, hot-water heat, electricity, gas ranges, two electric elevators, tiled halls and bath, hardwood moldings, call-bells, etc., cost \$50,000. Dr. Robert W. Brown will erect a \$6500 dwelling and office, after plans by L. F. Stutz, press-brick and brownstone front, electric lights, steam heat and tiled baths. Chas. W. King has had plans made by N. T. Haller for four three-story dwellings, with Indiana limestone and buff-brick fronts, cost \$5500 each. Henry Ives Cobb has made plans for a three-story residence to have hot-water heat and three tiled baths; Arthur Cowsill, contractor, J. W. Coleman, brick and stone dwelling, brick and limestone front, cost \$6500; Robert W. Brown, three-story brick and stone dwelling, brick and Hummelsburg brownstone front, flat tin roof, hot-water heat, cost \$5200; D. B. Groff, three-story brick and stone dwelling, tin roof, furnace heat, cost \$6000; J. W. Points, four two-story brick dwellings, press-brick fronts, flat tin roof, hot-water heat, cost \$7000; George M. Taylor, three two-story brick dwellings, press-brick fronts, mansard roofs, furnace heat, cost \$6000; Adam McCandlish, twenty two-story brick dwellings, brick and stone fronts, pitch roofs, steam heat, cost \$60,000; trustees Corcoran Gallery of Art, repairs, cost \$5000; Mrs. D. P. Morgan, back addition, copper and glass roof, brick and stone, cost \$20,000; J. E. Mezroth, dwelling, three stories, flat and mansard tiled and tin roofs, brick and stone, cost \$5500. Senator Clark of Montana is negotiating for the purchase of Stewart Castle, and if successful, will make extensive improvements. Major James Williamson will erect two dwellings 18x60 feet to cost \$10,000; M. W. Plagler, four three-story dwellings, buff-brick and limestone trimmings, cost \$12,000.

#### RAILROAD CONSTRUCTION.

##### Railways.

Annapolis, Md.—The Annapolis & Chesapeake Railroad Co. has been formed to build a branch of the Annapolis Short Line to the Naval Academy grounds for hauling building material and other freight. Shellman B. Brown of Annapolis is one of the directors of the company.

Baltimore, Md.—The Pennsylvania Railroad Co., it is announced, has determined to use steam motors on its tracks in the city for transferring freight between various stations in place of animal power, which is now utilized. George C. Wilkins is general agent of the company at Baltimore.

Barnwell, S. C.—It is reported that engineers of the Louisville & Nashville Company have been making surveys for a system of this branch in South Carolina which will include Barnwell on the route if the line is built. R. Montfort, at Louisville, Ky., is chief engineer.

Batesville, Ark.—W. B. Doddridge of St. Louis, general manager of the Missouri Pacific Railway Co., confirms the report in the Manufacturers' Record that surveys are being made for a branch of this system along the White River valley in Arkansas.

Chattanooga, Tenn.—It is again reported that work is to commence in a few days on the Lookout Mountain & Lulu Lake Railroad, which is being promoted by J. T. Crass and others.

Cincinnati, Ohio.—It is announced that the Cincinnati Southern Railway Co. has determined to relay the section of its road between Cincinnati and Chattanooga, a distance of 338 miles, with 75-pound rails, and that the work is to be done immediately. S. M. Felton of Cincinnati is receiver of the company.

Columbia, S. C.—It is now reported that the Southern Railway Co. has determined to have a line from Columbia to Savannah in the near future, and that contracts have been let for the work. Surveys have been in progress over the route for several weeks. F. S. Gannon at Washington, D. C., is vice-president of the company.

Columbus, Ga.—A report is again current that the Chattanooga, Rome & Southern Railroad Co. has finally decided to extend its line from Carrollton, Ga., to West Point, Ga., where it will connect with the Chattahoochee Valley; also that the latter road is

to be extended to Columbus, making a new line between Chattanooga and Columbus. The extension of the Chattanooga, Rome & Southern would be forty-five miles long. C. B. Wilburn at Rome, Ga., is president of the company.

Dahlonega, Ga.—The plan to build a railroad from Dahlonega to Gainesville has resulted in the formation of the Dahlonega Railway Co., in which J. W. Adams of Chattanooga, Tenn.; Frank A. Thompson of Toledo, Ohio, and H. D. Gurley of Dahlonega are interested. The company is to be capitalized at \$300,000, and the estimated length of the road is twenty miles.

Dallas, Texas.—The Missouri, Kansas & Texas Railroad has secured the necessary legislation to allow it to consolidate with the Sherman, Shreveport & Southern line, and it is understood work will soon begin upon several extensions of the Missouri, Kansas & Texas. One of these will be from San Marcos to San Antonio, a distance of fifty miles. A. A. Allen at St. Louis, Mo., is general manager of the company.

Ducktown, Tenn.—The Tennessee Copper Co., it is understood, intends constructing about eight miles of railroad to reach property which it owns near Ducktown.

Fayetteville, Tenn.—The Middle Tennessee & Alabama Railroad has been completed to a point within eighteen miles of Decatur and the grading is being completed on the last section of the road. Twelve miles of grading were finished several years ago, leaving six miles to be built.

Fort Smith, Ark.—A report is current that a company has been formed to build a railroad from Fort Smith through Northern and Eastern Arkansas, which will connect with the St. Louis, Cape Girardeau & Fort Smith Railroad at Hunter, Mo. The total length of the line is estimated at 210 miles. Among those reported as interested are several banking institutions, including F. H. Prince & Co. of Boston, Mass., and Merwin & Lemon of New Haven, Conn.

Gainesville, Texas.—Surveys are being completed for the Texas Western & Circle Belt Railroad, of which A. B. Donaldson of Gainesville is president.

Gulfport, Miss.—It is officially announced that the Gulf & Ship Island Railroad Co. has graded fifteen miles of the line between Hattiesburg and Jackson and has laid six miles of track. J. T. Jones of Buffalo, N. Y., is president of the company. S. S. Bullis of Gulfport is general manager.

Hagerstown, Md.—The city authorities have granted Messrs. Douglas Bros. a franchise to construct an electric line on certain streets of the city. It is understood that they will complete the electric system from Frederick to Hagerstown, building from Myersville to the city, a distance of fourteen miles. They may be addressed at Millersburg, Pa.

Harrisonburg, Va.—A report is current that the Chesapeake & Western Railroad may be extended from Elton, Va., its present terminus, to Gordonsville, a distance of thirty miles, and that surveys are being made. A. P. Tallaferro is general superintendent, at Harrisonburg.

Jacksonville, Fla.—The Atlantic, Valdosta & Western Railroad Co. has given a mortgage for \$5,000,000 on its property to the Central Trust Co. of New York, which, it is understood, insures the extension of this line to Albany from Valdosta, a distance of seventy miles. E. C. Long at Jacksonville is vice-president and general manager.

Jacksonville, Fla.—A bill is pending in the legislature to incorporate the West Florida & Gulf Railway Co., which proposes building in the western portion of the State to some point on the seacoast.

Lawndale, N. C.—A contract has been let for the railroad from the Cleveland Cotton Mills to a connection on the Seaboard Air Line to J. T. Oates, and grading has begun. The road is to be eleven miles in length.

Littleton, W. Va.—Engineers, who are said to be working in the interest of the Baltimore & Ohio, have been making surveys in Wetzel and Marshall counties.

Louisville, Ky.—Improvements being made to the Louisville, Evansville & St. Louis Railroad include several new bridges and the relaying of twenty miles of track with heavier rails. A large quantity of ballast will also be placed on the roadbed. G. T. Jarvis, at Louisville, is manager of the company.

Lynchburg, Va.—The Southern Railway Co. is constructing a branch line near Lynchburg, which will be about one and one-half miles long. It is partly completed.

Memphis, Tenn.—Engineers are now making surveys for the Memphis & New Orleans Railroad, and have covered the distance from Memphis to a point in Central Louis-

iana. George C. Thomas is engineer in charge. Hiram M. Steele is one of the principal promoters of the enterprise.

Mobile, Ala.—It is calculated that the Mobile & Bay Shore division of the Mobile & Ohio Railroad, now being constructed from Mobile to Bay Shore, Ala., a distance of twenty-seven miles, will be completed by July 1. E. L. Russell, at Mobile, may be addressed.

Moultrie, Ga.—Messrs. Redmond & Co. of Atlanta have secured a contract for extending the Sparks, Moultrie & Gulf Railroad from a point near Moultrie to Tifton, Ga., a distance of twenty-two miles. D. C. Baen, at Sparks, Ga., is president of the company.

Nashville, Tenn.—It is estimated that about 1500 men are now at work grading the Tennessee Central Railroad between Emory Gap and Rockwood, a distance of thirty-five miles, and that the road will be completed by August 1. A quantity of steel rails has already been received to be laid on this section. Jere Baxter is president of the railroad company at Nashville, Tenn.

New Madrid, Mo.—The plan to build a railroad from New Madrid into Pemiscot county has resulted in the formation of the Memphis & St. Louis Railroad Co. of New Madrid, with \$200,000 capital, by W. A. and Charles M. Barnes and others. It will connect the St. Louis & Memphis with the St. Louis, Kennett & Southern road.

New Orleans, La.—It is announced that the St. Louis, Memphis & New Orleans Railroad, recently referred to in the Manufacturers' Record, has been formed to connect with the Gould system of roads at Memphis, Tenn., and to form a portion of this system along the Mississippi valley to New Orleans. An official of the company states that it is capitalized at \$5,000,000. Surveys are now in progress. Reid Northrup of St. Louis, who is connected with the Gould family, is president of the company. Marshall Miller of New Orleans and W. A. Percy of Memphis are also interested.

Newport, Tenn.—A correspondent of the Manufacturers' Record writes that the railroad to be built by the East Tennessee Mining & Railroad Co. will be about twenty miles long. James I. Brooks, at Boston, Mass., is in charge of the construction.

Norfolk, Va.—Grading on the electric railroad between Norfolk and Sewell's Point is about one-half completed and tracklaying has begun. It is calculated to complete the line by September 1. D. Lowenberg of Norfolk is president of the company.

Norfolk, Va.—The rumor has been revived that the Baltimore & Ohio is considering the construction of a branch from Washington to either Norfolk or Newport News. It is stated that representatives of the company have been negotiating with contractors for estimates of such a branch.

Owensboro, Ky.—The plan to build a railroad line from Owensboro to Calhoun, a distance of seventeen miles, has been revived. It is stated that John W. Carter of Denver, Col., is taking an active interest in the matter.

Paris, Ky.—The plan to extend the Kentucky Midland Railroad from Paris to Mount Sterling has been revived, and it is stated that Peter Arlind of Louisville is among those interested in the enterprise.

Parsons, W. Va.—It is reported that right of way is being secured for the Cheat River Railroad, being promoted between Point Marion, Pa., and Parsons, a distance of forty-eight miles. It will connect with the West Virginia Central & Pittsburg at Parsons.

Prince, W. Va.—It is stated that 350 men are working on the branch of the Chesapeake & Ohio Railroad from Prince to Beckley, recently referred to in the Manufacturers' Record. The road will be about thirteen miles long.

Sistersville, W. Va.—T. E. Kelly of Middlebourne, W. Va., is interested in the proposed electric railroad from Sistersville to Middlebourne. It is calculated that the line will be about twelve miles long, and right of way is being secured. Others reported as interested in the enterprise are John A. Howard of Wheeling, W. Va., and J. L. Harne of Middlebourne.

Swainsboro, Ga.—Surveys are now in progress for an extension of the Stillmore Air Line from Swainsboro to Wadley, a distance of twenty-one miles. This will connect the Stillmore Air Line with the Louisville & Wadley Railroad. It is understood that contracts for grading the extension will be let immediately. Thomas Anderson is engineer.

Waco, Texas.—Engineers of the Texas Central Railroad Co. have nearly completed surveys for the proposed extension from

Albany, the present terminus, to the line between Texas and New Mexico. It is understood that the road will eventually be built to Albuquerque, N. M. Charles Hamilton at Waco is general manager.

Waldron, Ark.—The business men of Waldron are agitating the formation of a company to build a railroad from Waldron to Mansfield to connect with the Mansfield branch of the St. Louis & San Francisco system. The new road would be fifteen miles in length.

Washington, D. C.—The City & Suburban Railway Co. has nearly completed what is known as the Berwyn Heights section of this road, a distance of ten miles from Washington, and cars will be in operation in a few weeks. Thomas J. Hewitt is president of the company.

#### Street Railways.

Corsicana, Texas.—The city council has extended the franchise granted M. M. Bright for the proposed street railroad in the city.

Memphis, Tenn.—The Memphis Street Railway Co. has secured a franchise from the city to construct an extension to its lines within the city limits four miles long. F. G. Jones, the general manager of the company, may be addressed.

Portsmouth, Va.—The Portsmouth & Port Norfolk Electric Company has sold its property to a Baltimore syndicate, and it is understood that the line will be extended further along the harbor. The purchasers include stockholders, it is stated, of the Norfolk Electric Railroad, of which R. Lancaster Williams is president.

Spartanburg, S. C.—The Manufacturers' Record is informed that the company which has secured a franchise for a street railroad in Spartanburg proposes to build about six miles immediately, with another extension of about seven miles to cotton mills in the vicinity. Among those interested are F. D. McEwen of Charleston and F. B. Jennings of New York. The company will have a capital of between \$150,000 and \$250,000 and will construct a power-house for operating the street railway, also for lighting purposes. The agreement calls for the completion of five and one-half miles of railroad by January 1, 1900.

#### Machinery, Proposals and Supplies Wanted.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.**

**Barrels.**—J. J. Littlejohn & Co., Jonesville, S. C., want to correspond with dealers in or manufacturers of cider and vinegar barrels.

**Belting.**—See "Crushers."

**Belting.**—Honea Path Oil Co., T. H. Brock, president, Honea Path, S. C., will need belting for ginnery.

**Blinds.**—Hoecker & Morris, Greensboro, N. C., want prices on Venetian blinds.

**Blowers and Fans.**—Chester Machine & Lumber Co., Chester, S. C., wants to buy fan and blower system for woodworking department.

**Boiler.**—S. Dessau Co., 9 and 11 Gill Building, New York, N. Y., wants to buy a new or second-hand (the latter preferred) boiler 4x16 feet or from 100 to 125 horse-power.

**Boiler and Engine.**—See "Saw-mill Machinery."

**Boiler Equipment.**—Vance Cotton Mill Co., Chattanooga, Tenn., wants one feed pump and one water heater for a 100-horse-power boiler.

**Boilers and Engines.**—See "Crushers."

**Boilers and Engines.**—See "Electrical Machinery."

**Boilers and Engines.**—L. K. Moss, super-

intendent, Mabelle Mining Co., Warrior, Ala., is in the market for 60 to 100-horse-power Corliss or balanced-valve engine, two to 100-horse-power return tubular boilers.

**Boilers and Engines.**—Virginia Iron, Coal & Coke Co., Bristol, Va.-Tenn., needs from time to time boilers, engines, steel rails, 16 to 20-pound, also 25 and 30-pound rails, mine cars of various sizes, wire rope, drums, etc.; quotations solicited. Address Frank P. Hannan, purchasing agent.

**Brick Machinery.**—L. K. Moss, superintendent, Mabelle Mining Co., Warrior, Ala., is in the market for new or second-hand brick-making machinery.

**Building Equipment.**—W. J. Moor, Greenwood, S. C., wants prices on mantels, grates, tile and steel ceilings for residence.

**Building Equipment.**—J. C. Millford, Honea Path, S. C., wants prices on mantels, grates and steel ceilings for residence.

**Building Material, etc.**—G. E. Cunzelman, Brunswick, Ga., wants estimates on building materials, electric-light plant, furniture, scenery and everything complete for opera-house and office building.

**Building Materials.**—Rev. W. L. Grissom, Greensboro, N. C., wants white or gray mottled brick, and plate glass, lime, steel girders, etc.

**Carousels.**—Lafayette Cotton Oil Mills, Lafayette, Ala., wants to correspond with manufacturers of riding galleries, both new and second-hand machines.

**Ceiling and Flooring.**—See "Roofing, etc."

**Ceilings.**—See "Building Equipment."

**Coffins.**—See "Furniture."

**Conveyors.**—Honea Path Oil Mill Co., T. H. Brock, president, Honea Path, S. C., will need conveyors for ginnery.

**Corn-starch Machinery.**—John R. Fain, College Farm, Knoxville, Tenn., wants to correspond with manufacturers of machinery for making corn starch.

**Cotton Mill.**—W. Hall Burton, Brownsville, Tenn., wants to correspond with manufacturers of cotton-mill machinery relative to the establishment of a plant.

**Cotton-mill Machinery.**—R. G. Weldon & Co., Wilsonville, Ala., want prices on machinery for manufacturing cotton rope.

**Cotton-mill Machinery.**—Vance Cotton Mill Co., Chattanooga, Tenn., wants to buy one evener for a 36-inch Whitehead & Atherton combination picker and lappet; also one 36-inch lappet with evener.

**Cotton-oil Mill.**—Mayo & Swindell, Washington, N. C., want to correspond with manufacturers of cottonseed-oil machinery.

**Cottonseed-meal Mill.**—Seneca Oil Mills, Seneca, S. C., wants bids on cottonseed-meal mill.

**Crushers.**—Chippewa Sand & Stone Co., Massillon, Ohio, will purchase stone crushers, sand rolls, shafting and belting, sand dryers, 100-horse-power engines and boilers.

**Dryers.**—See "Crushers."

**Electrical Machinery.**—W. C. Porter, McComb, Miss., will need boilers, engines, dynamos, wire, etc., for electric-light plants for Durant and Summit, Miss.

**Electric-lighting Plant.**—See "Theatrical furniture, etc."

**Electric-lighting System.**—Sealed proposals addressed to the commissioner of Indian affairs, Washington, D. C., will be received until June 15 for furnishing the materials and labor required to construct an electric-lighting system at the Chilocco Indian Industrial School, O. T., in accordance with plans, specifications and instructions, which may be examined at Washington, D. C., or at offices of Times-Journal of Oklahoma City, O. T.; Journal of Kansas City, U. S. Indian Warehouse, No. 1002 State street, Chicago; Builders' and Traders' Exchange, Omaha; Northwestern Manufacturers' Association, St. Paul, and at the school. For further information apply to Superintendent C. W. Goodman, Chilocco Indian Industrial School, Arkansas City, Kans.; A. C. Tonner, acting commissioner, Washington.

**Electric-light Plant.**—Mossy Creek Woolen Mills, Mossy Creek, Tenn., will want dynamo for 125 24-candle-power lights.

**Electric-light Plant.**—Sealed proposals will be received by the special light committee of the city of Danville, Ky., until June 20 for lighting streets with not less than thirty-two 2000-candle-power arc lights. Also will receive proposals for installing at power-house of the city water works a complete electric-light plant of a capacity of not less than fifty 2000-candle-power arc lights, including all necessary poles, wire, not less than forty arc lamps, and all appurtenances pertaining to a complete lighting system, excepting the boilers and steam connections. Bidders are not restricted to any special form, plans or specifications, but will be re-

quired to furnish their own plans and specifications, which, with full details, must accompany proposals. Proposals must be addressed to and further information can be obtained from Henry E. Woolfolk, chairman; J. B. Fisher, mayor.

Electric-light Plant.—See "Building Material."

Electric-light Plant.—Vance Cotton Mill Co., Chattanooga, Tenn., wants to purchase an electric-light plant for small mill.

Electric-light Plant.—Louisburg, N. C., wants to correspond with engineers and contractors relative to the construction of electric-light plant, water works and sewerage system. Address J. M. Allen, William Bailey, committee.

Electric-light Plant.—Honea Path Oil Mill Co., T. H. Brock, president, Honea Path, S. C., wants electric machinery for lighting mill.

Electric-light Plant.—Seamless Rubber Co., Geo. M. Allerton, manager, New Haven, Conn., will purchase engine and dynamo for electric lighting.

Engine.—Honea Path Oil Mill Co., T. H. Brock, president, Honea Path, S. C., will need engine for ginnery.

Engine.—J. H. Partridge, Box 308, Suffolk, Va., wants prices on 8 or 10-horse-power naptha engine, new or second-hand.

Engine.—C. D. Benbow, Pinehurst, N. C., wants to buy a one-and-one-half to two-horse-power gas engine; second-hand will do.

Engine, Conveyors, etc.—Sealed proposals will be received until May 31 for furnishing materials, labor, etc., and putting in place complete coal and ash conveyor, hoppers, engine, etc., for boiler-house at the Danville branch of the National Home for D. V. Soldiers. For information apply to W. C. Gunnell, civil engineer, at the home, Danville, Ill., where drawings, specifications, etc., can be seen and blanks for proposals obtained. Each bid must be accompanied by a certified check for 5 per centum of amount of proposal; usual rights reserved; J. M. Birmingham, general treasurer, N. H. D. V. S.

Filtering Apparatus.—The city of Rome, Ga., has authorized the water committee to advertise for bids on the construction of a filtering plant of 1,500,000 gallons per twenty-four hours capacity. Address D. B. Hamilton, Jr., chairman of committee.

Flaxseed-oil Mill.—See "Oil Mill."

Foundry Equipment.—Olds Gasoline Engine Works, Lansing, Mich., will buy about \$30,000 worth of machinery for foundry, machine shop, blacksmith shop.

Furniture.—See "Building Material."

Furniture.—John Catron, 1109 Congress street, Houston, Texas, wants to correspond with manufacturers of furniture and coffins.

Furniture.—Hoecker & Morris, Greensboro, N. C., want prices on church pews.

Furniture Machinery.—W. M. Wrenn, care of High Point Furniture Co., High Point, N. C., is in the market for machinery for the manufacture of tables.

Gas Engine.—See "Engine."

Ginnery.—See "Oil Mill and Ginnery."

Glass-bottle Machinery.—James & Co., Chattanooga, Tenn., want addresses of manufacturers of machinery for making glass bottles.

Grates.—See "Building Equipment."

Heating and Ventilation, etc.—Proposals will be opened June 5 for installation of heating, ventilating and plumbing in school to be erected at Frostburg, Md. For further data see under Frostburg, Md., in "Building Notes" column.

Heating Apparatus.—Hoecker & Morris, Greensboro, N. C., want prices on hot-water heating system.

Heating Apparatus.—Hoecker & Morris, Greensboro, N. C., want prices on hot-air heaters.

Iron and Steel Work.—See "Roofing, etc."

Irrigation Plant.—The Trinity Rice, Land & Irrigation Co., W. C. Moore, vice-president, 305½ Main street, Houston, Texas, will purchase machinery for irrigation system, such as boilers, engines, pumping machinery, etc.

Knitting Machinery.—R. G. Weldon & Co., Wilsonville, Ala., want prices on machinery for knitting underwear and hosiery.

Macadamizing.—Sealed proposals will be received until June 2 for the construction of about eight miles of macadam and Telford macadam road. Plans and specifications may be examined and full information obtained at office of J. Marshall Young, engineer, Room 1, Pomfret Building, South Third street, Easton, Pa. Certified check for \$500 must accompany each bid; usual rights reserved; William Coyle, Preston H. Riegel,

Wm. H. Reagle, commissioners of Northampton county, Easton, Pa.; John W. Falvey, clerk.

Machine Shop.—See "Foundry Equipment."

Machine Tools.—Rogers Screw Co., Arnold Oney, second treasurer, Providence, R. I., will buy lathes, drilling machines and hack saws.

Machine Tools.—W. H. Gibbes & Co., Columbia, S. C., want addresses of makers of and dealers in hand augers for boring mill columns.

Malt Machinery.—C. E. Wilkins, Box 433, Norfolk, Va., wants addresses of parties dealing in or manufacturing machinery for making malt.

Marble and Slate.—Electrical Engineering & Supply Co., Charlotte, N. C., wants slate and marble for electric switchboards.

Masonry.—Chief Engineer T. H. Michael of the Richmond, Petersburg & Carolina Railroad, Richmond, Va., has advertised for bids for the construction of 3500 cubic yards of bridge masonry.

Mattress Machinery.—R. C. Little, Dublin, Ga., wants estimates on the cost of machinery for manufacturing mattresses and spring beds.

Mining Equipment.—See "Boilers and Engines."

Naphtha Engine.—See "Engine."

Nickel-plating Machinery.—W. J. Loth Stove Co., Waynesboro, Va., is in the market for nickel-plating machinery.

Oil Mill.—Victoria Cotton Oil Co., Victoria, Texas, wants to correspond with manufacturers of machinery for making flaxseed oil.

Oil Mill.—George A. Folmar, 139 Jeff Davis avenue, Montgomery, Ala., wants to buy second-hand cottonseed-oil mill of 10, 15 or 20-ton capacity.

Oil Mill and Ginnery.—William Gray, president Tallapoosa County Bank, Dadeville, Ala., wants to correspond with manufacturers of cotton-oil-mill and ginnery machinery.

Pulley-works Machinery.—Company will buy about \$50,000 worth of machinery to equip a pulley factory. Address Charles A. Brinley, manager, Nicetown, Pa.

Pump.—Traders' Cotton Oil Co., Union Springs, Ala., is in the market for hydraulic pressure pump 8x1x10 to operate five cottonseed-oil presses in connection with accumulator system.

Railway Equipment.—See "Boilers and Engines."

Railway Equipment.—W. A. Desborough, care of Commercial Hotel, Stockton, Cal., is in the market for three miles of second-hand street rail, 20 to 24-pound; give prices f. o. b. cars Stockton.

Rice Mill.—B. S. Wright, Brooksville, Fla., wants to purchase complete equipment for rice mill.

Roofing.—P. T. Little, Hancock, Md., will probably want roofing.

Roofing, etc.—Georgia Vineyard Co., N. C. Matthews, president, Tallapoosa, Ga., wants to communicate with manufacturers of iron and steel frame work for iron tile ceiling and flooring.

Saw-mill Machinery.—Eastern Kentucky Timber & Lumber Co., R. M. Scobee, secretary, Winchester, Ky., is in the market for double iron frame circular saw mills and a 25-horse-power detached and boiler on skids to suit engine.

Saws.—See "Machine Tools."

Sedimentation Reservoir—American Pipe Manufacturing Co., 112 N. Broad Street, Philadelphia, Pa.—Proposals will be received not later than June 1 for the construction of a 10,000,000-gallon sedimentation reservoir, near Media, Delaware county, Pennsylvania. Plans and specifications may be seen about May 25. An approximate estimate of materials is as follows: 6927 cubic yards embankment, 2878 cubic yards waste material, 3895 cubic yards puddle, 1497 cubic yards rubble masonry, 1214 cubic yards concrete, 164 cubic yards dry flote wall, 3090 square yards sodding, 1200 feet 20-inch vitrified pipe laid complete; usual rights reserved; J. W. Ledoux, chief engineer.

Sewerage System.—See "Electric-light Plant."

Shafting and Pulleys.—Honea Path Oil Mill Co., T. H. Brock, president, Honea Path, S. C., will need shafting and pulleys for ginnery.

Spring-bed Machinery.—See "Mattress Machinery."

Telephone Equipment.—Mutual Telephone Co., B. B. Owens, secretary, Winston, N. C., will need about a carload of No. 12 wire and 5000 to 6000 insulators.

Telephone Equipment.—J. M. Moore, secretary Smithville & Red Rock Telephone Co., Smithville, Texas, wants prices on crossarms, brackets, insulators.

Telephone-equipment Supplies.—See "Marble and Slate."

Theater Scenery.—See "Building Material."

Theatrical Furniture, etc.—W. Chamberlin & Co., Knoxville, Tenn., will receive bids on opera chairs, scenery, electric lighting, etc., for opera-house at Jackson, Miss.

Tiling.—See "Building Equipment."

Water Works.—See "Electric-light Plant." Well-boring Machinery.—D. D. Maddry, Malvern, Ark., wants to correspond with makers of and dealers in machinery for boring oil and gas wells.

Wire.—See "Electrical Machinery."

Woodworking Machinery.—Chester Machine & Lumber Co., Chester, S. C., wants to buy new and second-hand power mortiser.

Woodworking Machinery.—Box 92, Fayetteville, N. C., wants to correspond with manufacturers of machinery for making crates and baskets.

## GENERAL INDUSTRIAL NEWS.

R. E. Magee of Lowell, Mass., is a director in the Ideal Buckle Co., recently formed with \$100,000 capital.

The McCrary Ice Machine Co. of Passaic, N. J., has secured a plant already constructed for its works.

The addition to the Superior Steel Mill at Carnegie, Pa., it is stated, will include two buildings, each 80x100 feet.

The Penn Graphite Co. of Allentown, Pa., is capitalized at \$25,000, and includes W. F. Roth as one of the directors.

John M. Kinner is a director in the Scalper Mining Co., capitalized at \$100,000. He may be addressed at Cleveland, Ohio.

The New Davis Mining Co., at Ironwood, Mich., has been formed, with \$100,000 capital stock, by J. R. Moore and others.

A beet-sugar factory may be constructed at Groveland, Mass., by a company to be formed, with \$1,000,000 capital stock.

Joseph Wharton of Philadelphia, it is reported, is interested in a blast furnace which may be built at Port Oran, N. J.

The Quincy Stove Co. will manufacture stoves at Quincy, Ill., with \$40,000 capital stock. John H. Tenk may be addressed.

Frank E. Rowell of Kittery, Me., is a director in the Boston Beer Pump Co., recently incorporated with \$150,000 capital.

It is understood that the Lisbon Falls Fiber Co. of Lisbon Falls, Me., will expend about \$100,000 in improvements to its plant.

Property has been purchased for the additions to the works of the Enterprise Stamping & Enameling Co. of Bellaire, Ohio.

The Rogers Screw Co. of Providence, R. I., writes the Manufacturers' Record that additional equipment will be needed for its plant.

The Manhattan Hotel of New York is to be enlarged at a cost of \$750,000. Messrs. Hawke & Wetherbee are lessees of the hotel.

The Malleable Post & Iron Co. has been incorporated at St. Paul, Minn., with \$60,000 capital by W. H. Kent of that city and others.

The Landis Tool Co. of Waynesboro, Pa., it is stated, will construct a two-story addition to its works, which will be eighty feet square.

The factory to be constructed by H. C. Bradley at Bridgeport, Conn., will be 50x190 feet in size, and about 150 horse-power will be used.

The Tuna Glass Co. has been formed at Bradford, Pa., and capitalized at \$40,000. S. J. Gifford of Smethport, Pa., may be addressed.

The Battle Creek (Mich.) Steam Pump Co. will build its proposed additions by day labor, and has purchased the necessary equipment.

The Victor Metals & Foundry Co. of Weymouth, Mass., has decided to enlarge its works for manufacturing screen plates for paper mills.

John T. Holmes of Detroit, Mich., and others have organized the Iola Cement Co., with \$3,500,000 capital stock, to manufacture cement.

Frank Ritter and others have incorporated the Ritter Manufacturing Co. to manufacture toys at Cleveland, Ohio, with \$10,000 capital stock.

The Lalance & Grosjean Manufacturing Co. of Woodhaven, N. Y., it is reported, will add a factory building to its present works to cost \$80,000.

Plans have been prepared for a factory building to be erected by F. A. Walsh at Milwaukee, Wis., to be five stories high and to cost \$75,000.

The Musgrave Knitting Co. at Pittsfield, Mass., will manufacture knit goods with \$12,000 capital stock. John H. Musgrave may be addressed.

The Machias Lumber Co. is a recent Maine

incorporation capitalized at \$400,000 in which James M. W. Hall of Cambridge, Mass., is a director.

The Youngstown Foundry & Machine Co.'s addition to its plant at Youngstown, Ohio, will include a machine shop. A site has been purchased.

The Standard Foundry Co. will manufacture brass and iron castings at Detroit, Mich., with \$10,000 capital stock. S. H. Morris may be addressed.

G. W. Miller of Woonsocket, R. I., may be addressed relative to the Miller Press & Machine Co., recently incorporated to manufacture textile machinery.

The Grand Forks Lumber Co. has been incorporated at East Grand Forks, Minn., with \$100,000 capital stock, by A. E. Macartney of St. Paul and others.

C. S. Smith and others have incorporated the Smith Webbing Co. to manufacture elastic webbing at Pawtucket, R. I. The company is capitalized at \$100,000.

George S. Lee of Hawthorne, N. J., may be addressed relative to the National Grate Bar Co., capitalized at \$250,000, to manufacture this specialty, also fire-brick.

The Phoenix Manufacturing Co. at South Berwick, Me., is capitalized at \$50,000 to manufacture novelties. Joseph G. Birch at Newton, Mass., may be addressed.

A dispatch from South Bend, Ind., is to the effect that James Oliver and others are interested in a plan to build a dam to develop a water-power near that town.

The Michigan Starch Co., at Traverse City, Mich., has been formed to manufacture this article, with \$50,000 capital stock. S. H. Paxton is one of the directors.

A dispatch from Harrisburg, Pa., is to the effect that a grain elevator, also a grist mill, will be erected by W. J. Koch & Co., commission merchants of Philadelphia.

The American Tubular Axle Co. of Toledo, Ohio, has been formed to manufacture vehicles, with \$50,000 capital stock. James M. Murray, at Toledo, may be addressed.

William E. Forster of Lynn, Mass., may be addressed relative to the Forster Fire Extinguisher Co., which will manufacture this specialty, with \$100,000 capital stock.

The Jarecki Fertilizing Co. has been incorporated to manufacture fertilizers at Sandusky, Ohio, and is capitalized at \$1,000,000. Guster Jarecki is one of the directors.

W. L. Symonds of Lynn, Mass., is a director in the Boston Woven Hose & Rubber Co., formed with \$1,200,000 capital stock to manufacture bicycle tires and other specialties.

H. J. Felker of Grand Rapids, Mich., may be addressed relative to the Edison Gas Grate & Furnace Co., which will manufacture these specialties with \$25,000 capital stock.

A recent Illinois corporation is the American Nickeloid Co., capitalized at \$10,000. It will manufacture nickelized metal. Among those interested are Leopold L. Hirsch of Peru.

The Bingham & Eastern Copper Mining Co., incorporated with \$1,000,000 capital stock, will have its offices at New Haven, Conn. Charles A. Graham may be addressed.

The Holmes Silk Co. is a recent New Jersey incorporation which will have its principal office at Paterson, and is capitalized at \$200,000. William D. Holmes may be addressed.

The Peerless Finishing Co. is a corporation which will manufacture textiles at Passaic, N. J. It is capitalized at \$50,000. Among the directors is James Watson of that town.

The Kenwood Bridge Co. of Chicago is reported as having secured the contract for eight of the buildings of the works to be erected by the Union Malleable Iron Co. of Moline, Ill.

William A. Russell and others have formed

the Somerset & Kennebec Co. to develop water-power, etc., and capitalized at \$800,000. Mr. Russell may be addressed at Lawrence, Mass.

Hon. W. C. Sprouls and others are interested in the formation of a company to construct another shipyard at or in the vicinity of Chester, Pa. A company is to be capitalized at \$1,000,000.

The Photo-Chromotype Engraving Co. at 757 Summer avenue, Newark, N. J., has been formed for illustrating purposes with \$40,000 capital stock. Frank G. Stewart may be addressed.

The American Grain Co., which will have its headquarters at Minneapolis, Minn., has been formed to construct grain elevators. Walter S. McLaughlin of Minneapolis is one of the stockholders.

The Indianapolis Drop Forging Co. at Indianapolis, Ind., has let contracts for an addition to its plant, and has secured most of the machinery required. F. P. Bates is president of the company.

There is a possibility that a bicycle plant may be built at Monessen, Pa., according to a dispatch from that city, which will employ 1100 men. The company interested is termed the American Wheel Co.

The Chase Pump & Manufacturing Co. of Columbus, Ohio, has let contracts for its addition and secured the necessary equipment. The addition comprises a new foundry building 40x90 feet in dimensions.

The Chippewa Sand & Stone Co. of Massillon, Ohio, writes the Manufacturers' Record that it will erect a sand mill and will purchase considerable machinery. The plant will be located at Warwick, Ohio.

One of the recent motor companies incorporated is the Twyford Vehicle Co., capitalized at \$1,000,000. It is stated that the company will manufacture under the patents of Robert E. Twyford of Pittsburg, Pa.

The Pennsylvania Car Wheel Co. of Pittsburg, Pa., has increased its capital from \$100,000 to \$200,000 in order to purchase additional property for its business. It has not been sold to any other corporation, as rumored.

A dispatch from York, Pa., is to the effect that L. S. Stoner has been elected president, and M. G. Collins, manager, of a company which intends erecting a silk mill in this city in the near future. It is capitalized at \$100,000.

The Seamless Rubber Co. of New Haven, Conn., is erecting an addition to its present building to be 40x100 feet in dimensions and four stories high. An electric plant will be purchased. George M. Allerton is general manager.

H. F. Bachman & Co. of Philadelphia, it is reported, have become interested in the Warwick Iron & Steel Co. at Pottstown, Pa. This company may erect additional furnaces and possibly build a steel plant in connection with it.

A dispatch from Chicopee, Mass., is to the effect that a company called the Chicopee Envelope Co. is being formed, to be located within this town or Springfield, which will include a plant with a capacity of 1,000,000 envelopes daily.

J. M. Ogier at Cambridge, Ohio, writes the Manufacturers' Record that the Coshocton Iron & Steel Co. will do nothing about building works for the present. They will probably be erected at Coshocton. Mr. Ogier is one of the incorporators.

Samuel Severance of Pittsburg, Pa., it is announced, has secured a site for a spike and rivet mill to be erected at Glassport, Pa. The works, it is understood, will require 200 men and the main building will be 100x300 feet in dimensions.

The additions to the plant of the National Cash Register Co. of Dayton, Ohio, it is understood, will include a five-story factory to be 360x60 feet in dimensions, while the brass foundry will be doubled. Electricity will be largely used in operating the plant.

Charles A. Stickney of St. Paul, Minn., advises the Manufacturers' Record that the plant for making gasoline engines will comprise a machine shop and pattern shop and office buildings costing about \$10,000. Contracts have been let and machinery purchased.

The Pressed Steel Car Co. of Pittsburg, Pa., has begun work upon the plant to be built at Joliet, Ill., on forty acres of ground which have been purchased. The plant will have a capacity of about forty cars daily. A. G. Glover, at Pittsburg, may be addressed.

According to a dispatch from Chicago, Ill., the Chicago, Rock Island & Pacific Railway Co. may construct a building for a repair shop at Valley Junction, Ia., which will be 220x160 feet in size. W. K. McFarlan is

superintendent of construction at Davenport, Ia.

Another plant, it is reported, is to be erected at Scottdale, Pa., for manufacturing structural steel from old steel rails. Buildings will be erected on a site covering ten acres of ground, and the promoting company is the Ontario Steel & Iron Co. It is capitalized at \$200,000.

According to a report from Chicago, a plan is under way to construct a plant for manufacturing steel freight cars in or near Chicago. It is proposed to organize a company with \$10,000,000 capital, and to build works which will utilize fully 600 tons of material daily and employ at least 1500 men.

The Olds Gasoline Engine Works of Lansing, Mich., advises the Manufacturers' Record that contracts will soon be let for its plant, which will include a machine shop to be 70x300 feet, a foundry to be 70x140, a show building 179x50 feet and a blacksmith shop 31x100 feet. About \$30,000 worth of machinery will be purchased.

The plan to complete the tunnel under the North river has been taken up by a company called the Manhattan Tunnel Railway Co., recently incorporated by Philip W. Hall of Cranford, N. J., and others. It is stated that the company intends building a double-track railroad, which, when completed, will be operated by electric or some other motor power, with a terminus near Canal street, New York.

It is announced that the New York Shipbuilding Co., of which Henry G. Morse is president, has finally determined to locate at Camden, N. J., where it has secured 100 acres on the Delaware river. This company expects to employ about 5000 men, and will have a plant capable of building the largest-size vessels. Among the directors of the company are Michael Jenkins and R. C. Hoffman of Baltimore.

Companies have recently been incorporated in West Virginia for the purpose of dealing in apparatus for cotton-baling. They are entitled the Tennessee Planters' Co., the Georgia & Carolina Planters' Co. and the Texas Planters' Co. The principal offices will be located in New York city. C. W. Amory of Boston is a director in the Texas Company, Charles S. Rackman in the Tennessee Company, and Felix Rackman in the Georgia & Carolina Company.

The American Pulley Co. of Philadelphia, Pa., referred to in the last issue of the Manufacturers' Record, will let contracts in a few weeks for its plant at Nicetown, Pa., for manufacturing pulleys, which will consist of two buildings having fully 50,000 square feet of surface. About 300 horsepower will be developed and about \$50,000 worth of machinery will be purchased. Geo. V. Cresson is president and Charles A. Brinley, managing director of the company.

The Stony Point Land Co., recently formed at Buffalo, N. Y., is understood to be organized for the purpose of acquiring land for the steel plant, which has already been referred to in the Manufacturers' Record as to be established in or near Buffalo. This company intends securing 900 acres of land, which will be used as the site for the present. Among those interested in it are J. J. Albright and Cicero J. Hamlin of Brooklyn. As already noted in the Manufacturers' Record, a representative of the firm of Messrs. Rogers, Brown & Co. of Cincinnati and St. Louis, also the Lackawanna Steel Co. of Scranton, Pa., are promoters of the steel company.

#### TRADE NOTES.

**Porter Locomotives.**—The firm of H. K. Porter & Co. of Pittsburg, Pa., has been succeeded by the H. K. Porter Co., a corporation which will continue the business of manufacturing locomotives. H. K. Porter is president; W. E. Lincoln, vice-president; C. L. McHenry, secretary, and E. P. Lord, general manager.

**Ball Engines.**—The Ball Engine Co. of Erie, Pa., has sold an engine for direct connection to electric generator in Philadelphia, two 80-horse-power engines for direct connection in Cleveland, Ohio, a 175-horse-power engine for electric plant at Marion, Ohio, and a 200-horse-power engine for electric-light plant at Erie, Pa.

**Blast Furnace and Lands for Sale.**—In our advertising columns this week appears the announcement of Mr. A. J. Crawford of Terre Haute, Ind., regarding furnace and mineral property in Alabama. The property in question includes an 18x65 iron-shell blast furnace in good condition, thirty-five acres of land on which furnace stands, 11,080 acres of timber lands, 300 acres of brown-ore lands, etc., and is offered for sale.

**Toggle Press For Sale.**—A Horton No. 5 toggle power press is offered for sale in our advertising columns. This is an open-back press, flywheel 6x36 inches (solid), 10-inch depth, and height of throat twenty-two inches between stay-bolts, used only on light work, but tested to 225,000 stroke pressure, weighs 6000 pounds, complete with boiler. For further information address S. T. Lund, Oliver street, Boston, Mass.

**Gyrator Flour Mills.**—The gyrator system for flour mills continues to grow in popularity with millers. Some recent contracts filed by the Wolf Company of Chambersburg, Pa., for mills and machinery of the gyrator system were as follows: Forty-barrel complete mill at Grantboro, Pa.; 40-barrel mill at Monterey, Va.; 25-barrel mill at Ridgeway, S. C.; 50-barrel mill at Campbellsville, Ky.; 40-barrel mill at Albemarle, N. C.

**Ice Plants.**—Recent contract filed by the York Manufacturing Co. of York, Pa., included one for complete 25-ton refrigerating and 10-ton ice plant in East Liberty, Pa.; for 20-ton ice factory in Piqua, Ohio; 20-ton ice plant in Anderson, Ind.; 10-ton ice machine in Trenton, N. J.; 20-ton ice plant in Washington, Ind.; 20-ton refrigerating plant in Wheeling, W. Va., and two 125-ton tandem compound condensing refrigerating machines in Philadelphia.

**Pulp and Paper Mill Sale.**—The entire plant of the Singerly Pulp & Paper Co. in Cecil county, Maryland, will be sold by trustees of the courts on June 14. The entire plant is equipped with the latest and most improved machinery necessary in the production of chemical pulp from wood, the capacity being 50,000 pounds daily. Catalogue giving full description of the property can be obtained on application to W. T. Warburton, John S. Wirt, Albert Constable, trustees, Easton, Md. (or see advertisement).

**Sturtevant Company Enlarging.**—The B. F. Sturtevant Co., whose well-known "chimneyless" factory is situated at Jamaica Plain, near Boston, is making an addition to its already large floor space for electrical work. Another story is being added to two of its shops, one 125x50 feet and the other 100 feet square, both of which will be used for this purpose. The increase in this department has been enormous. The company is now making electric motors up to 125 horse-power and generators up to 100 kilowatt.

**File Philosophy Again.**—We learn from the Nicholson File Co. that the "File Philosophy" (notice of which was made in these columns upon its publication two months ago) has proved so popular that a second and much-increased edition is rendered necessary. The little book has been sent to thousands of machinists and file users throughout this country and abroad. Treating as it does of files, and how to use them, it proves invaluable to anyone interested in that class of tools. All those who have not secured a copy should ask for one. Address the company's head office in Providence, R. I.

**Swing-Sifter Flour Mills Contracted For.**—There are several systems of flour milling that have come into use in this country within the past few years that have attained considerable popularity with the milling fraternity. One of the most prominent of these is that of the swing-sifter system, as manufactured and installed by the Nordyke & Marmon Co. of Indianapolis, Ind. This company's report of most recent sales shows a long list of new mills contracted for and to be improved or remodeled to the swing-sifter system. In the aggregate the mill contracts filed show a daily capacity of 960 barrels of flour. These mills are located in all parts of the country.

**Forge Coal.**—Many shops in the Southern States formerly sent to Pennsylvania for a blacksmiths' coal that would give the required results. A few years ago there was discovered in Alabama a seam of coal that was peculiarly well adapted for shop work. After it was tested in many shops it was thought that it could be still further improved by washing it to remove all sulphur and foreign matter. The best of results followed this, and it is now claimed that Alabama supplies a shop coal that is equal to any. The Mobile Coal Co. of Mobile, Ala., is not only supplying the shops of Mobile with this coal, but shipping to the interior of the State, to Mississippi, Louisiana, Arkansas and Texas.

**Technology Institute's Experience with Impulse Wheel.**—The American Impulse Wheel Co. of 120 Liberty street, New York city, writes as follows: "We have just received word this morning that the 36-inch water-wheel lately set up in the Boston Institute of Technology has on its first test, before bearings are smooth, etc., run over 80 per cent. efficiency, and the whole water engine in design and finish is running satisfactorily, adding only another testimony to the many that the water-wheels of this company are superior in design, mechanical workmanship and efficiency to any of the same type in the world. Wherever we have installed wheels this same report comes back of their giving satisfaction."

**Rapid Contractors.**—Railways under contract include that of the Newtown Electric Street Railway Co., running from Newtown, Pa., to Doylestown, Pa., making a connection with Bristol; the Elmira & Seneca Lake Railway, eighteen miles long, between Horseheads and Watkins Glen, New York, is nearly completed as to grading, tracklaying will begin next week and the line will be in running order by the middle of July; the Michigan Traction Co., from Kalamazoo, Mich., to Battle Creek, work to begin before June 1 and be completed within ninety days, being twenty-seven miles of work. These contracts have been awarded to the American Engineering Co. (general offices, Harrison Building, Philadelphia, Pa.)

**Planished Sheet Iron.**—In the earlier days of the use of Russia sheet iron in this country its cost per pound ranged as high as twenty-five cents. In fact, up to the time that Wood's patent planished sheet iron was invented and put upon the American market, and for a short time afterward, the market price varied from fifteen to twenty-five cents. Not long after its advent the makers of the American product claim their iron to have been demonstrated superior to Russia iron in quality, uniformity of color, gauge and finish; moreover, that it was placed upon the market in dimensions to suit requirements, and not only did it possess superiority of quality, but its price was fixed at a figure much lower than that of Russia iron. Wood's patent planished sheet iron is claimed to have driven Russia iron out of the market, and it averages to cost the consumer rather less than one-half the price formerly charged for Russia iron.

**The New York Blower Co.**—The Boston Blower Co. having recently changed hands, Messrs. De Witt T. Lyon and Walter G. Holmes have severed their connection with the company and associated themselves with the New York Blower Co., which will enable them to give their friends and customers accurate information and fair prices in all lines of blowers, exhausters, heaters, engines, etc. The New York Blower Co. has large shops at Louisville, Ohio, which are now equipping throughout with modern machinery under the personal supervision of Mr. Walter G. Holmes. Offices have been secured at 39-41 Cortlandt street, New York city, which will be in charge of Mr. De Witt T. Lyon, formerly New York manager for the Boston Blower Co. Mr. R. C. Penfield of J. W. Penfield & Son of Willsoughby, Ohio, is president of the New York Blower Co., insuring ample capital and fair business dealings.

#### 20,000-Spindle Mill for Anderson, S. C.

Arrangements have been completed for the establishment of another cotton factory at Anderson, S. C., and the company will organize at once. Col. James L. Orr, president of the Piedmont Manufacturing Co. (cotton goods) of Greenville, S. C., writes that the company will be known as the Orr Cotton Mill, to have capital stock of \$300,000 or \$400,000, most of which has been subscribed. The equipment to be installed will consist of 15,000 or 20,000 spindles, with the necessary looms, etc., and electricity will furnish the motive power. Most of the machinery has been purchased. Besides Colonel Orr, the stockholders include R. S. Hill, an Anderson banker, and J. A. Brock, also an Anderson banker, and president of the Anderson Cotton Mills.

**The Tallassees Falls Manufacturing Co.**—The Tallassees Falls Manufacturing Co. of Tallassees, Ala., writes that its new mill (recently reported as under construction) will have 50,000 spindles, not 60,000, as was at first stated. The water-power development instituted will be 10,000 horse-power.

## FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

## Capital Welcomed to the South.

Mr. Frank S. Hambleton of the banking firm of Hambleton & Co. of Baltimore, who has recently returned from a Southern trip, is very hopeful as to the business prospects in the South. In a recent interview he is quoted as saying: "The South is prosperous and business is steadily expanding. This is especially true of the iron and coal industries, which are in better condition than ever before. The plants are working to their full capacity and find a ready market for their products. Crops are in splendid condition, and the farmers, as a rule, are paying cash for what they buy. Merchants in the city report large and growing sales. Hostility to corporations, which in the past retarded the development of the South, no longer exists in the section I visited. Capital is welcomed, and it is taking advantage of the possibilities offered in the South. In my opinion, more money will be invested in new business enterprises there during the next twelve months than in any other year in its history. Money is plentiful in the cities and towns I visited, and confidence has been completely restored."

## Southern Mill Dividends.

Recent dividends declared by Southern cotton-manufacturing companies are as follows: Tucapau Company, Tucapau, S. C., 3 per cent. semi-annual; Pacolet (S. C.) Company, 5 per cent. semi-annual; Spartan Mills, Spartanburg, S. C., 3 per cent. semi-annual; the Converse Company, Glendale, S. C., 5 per cent. semi-annual; Clifton Manufacturing Co., Clifton, S. C., 4 per cent.

## New Corporations.

The Bank of Ensley, Ala., has opened for business, with R. F. Berry, cashier. The institution is capitalized at \$50,000.

The Covington Investment Co. has been incorporated at Covington, Ky., with \$10,000 capital stock, by J. H. Keith and others.

The Farmers' Fire Insurance Association of Mississippi will have its headquarters at Jackson. D. A. Elliott is one of the incorporators.

Arrangements have been made to erect a building for the bank which is about to be opened at Scottsboro, Ala. M. B. Shelton is president, and S. S. Broadus, cashier.

The National Beneficial Insurance Co. has been formed at Newport News, Va., with D. S. Jones, president; W. B. Vest, vice-president, J. M. Curtis, treasurer, and W. H. Midgett, manager. The company is capitalized at \$40,000.

## New Securities.

The Marion County Savings Bank has increased its capital stock to \$60,000. It is located at Palmyra, Mo.

The Bank of Collierville, Tenn., has purchased the issue of \$1400 in 6 per cent. water-works bonds offered by this town.

The Bank of Charles Town, W. Va., has purchased the issue of \$10,000 of this town in 4 per cent. refunding bonds at 104.125.

The town of Jellico, Tenn., has decided to hold an election to vote on the question of issuing \$6000 in bonds for street improvements.

Messrs. E. H. Rollins & Sons of Boston have purchased the issue of \$150,000

in 4 per cent. bonds of Wilmington, N. C., paying 101.466.

Messrs. W. J. Hayes & Sons of Cleveland, Ohio, have purchased the issue of \$25,000 in bonds of Aiken, S. C., at \$26.741 and interest.

F. V. Evans, city auditor, will receive bids until June 7 for the issue of \$20,000 in 6 per cent. bonds to be sold by the city of Birmingham, Ala.

The city of Danville, Va., has voted in favor of issuing \$100,000 in 4 per cent. bonds for improvements. The mayor will give further information.

A vote has been taken at Baton Rouge, La., in favor of issuing \$200,000 in 4 per cent. improvement bonds. The mayor will give further information.

The county commissioners at Evergreen, Ala., will receive bids for \$25,000 worth of bonds. G. W. Northcutt at Gravela, Ala., may be addressed.

The town of Williamsport, Md., is about to place on the market an issue of \$6500 in bonds for improvements. The town clerk will give further details.

The school district of Angleton, Texas, will probably issue \$10,000 in bonds in the near future. The board of commissioners may be addressed at Angleton.

The Merchants and Mechanics' Savings Bank of Norfolk, Va., has purchased the issue of \$25,000 in paving bonds issued by the city of Portsmouth, Va., at 103.3.

Hood county, Texas, is considering the question of issuing \$30,000 in 4½ per cent. refunding bonds. The commissioners' court may be addressed at Granbury, Texas.

Bids will be received until January 1 for the issue of \$25,000 in 4 per cent. refunding bonds for sale by Jackson, Tenn. Thomas Tate, chairman, may be addressed.

The town of Plaquemine, La., has decided to vote June 28 on the question of issuing \$38,000 in 4 per cent. bonds for improvements. The mayor will give further information.

A bill is pending in the Texas legislature authorizing Calhoun county to issue bonds for road improvements. The board of county commissioners may be addressed at Port Lavaca.

Bids will be received until June 15 at Raleigh for the issue of \$8000 in 6 per cent. bonds placed on the market by Wake county, North Carolina. Address B. P. Williamson, county treasurer.

A correspondent of the Manufacturers' Record writes that Cheraw, S. C., has decided to issue \$10,000 in bonds for improvements, which will bear 6 per cent. interest. The mayor may be addressed.

Halifax county, North Carolina, will receive bids until June 6 for its issue of \$15,000 in 6 per cent. bonds. W. F. Parker, chairman of the board of commissioners, may be addressed at Enfield, N. C.

The Maryland Telephone Co., which succeeds the Home Telephone Co. of Baltimore, it is understood has made arrangements to issue \$1,000,000 in 5 per cent. gold bonds, and is capitalized at \$1,000,000. George R. Webb is president of the company.

The Seashore Improvement Co. of Charleston, S. C., has decided to issue \$200,000 in bonds bearing 5 per cent. interest, which will form a mortgage on the property of this company on the Isle of Pines, near Charleston. The Baltimore Trust & Guarantee Co. is trustee for the mortgage. S. H. Wilson is president of the Seashore Company, and G. B. Edwards, treasurer.

## Dividends and Interest.

The Columbus Investment Co. of Columbus, Ga., has declared a dividend of 6 per cent.

## Financial Notes.

The Fidelity Trust & Safety Vault Co. of Louisville, Ky., has re-elected John Stites president.

The bank recently organized at Chapel Hill, N. C., will have a building erected for its business. Contracts have already been let.

In another column an announcement is made to certificate holders in the Baltimore & Ohio reorganization plan that the securities and money to which they are entitled will be exchanged for the certificates on and after May 24. The certificates may be deposited with the Mercantile Trust Co. of New York or the London and Westminster Bank of London.

Mr. N. F. Thompson, late of Birmingham, Ala., and more recently secretary of the Johnstown Board of Trade, has severed his connection with the latter organization, and expects to go next month to Huntsville, Ala., where he will represent capitalists interested in the industrial and agricultural upbuilding of that locality.

A shipment of the machinery for the equipment of three Louisiana sugar mills was made by the Illinois Car & Equipment Co. of Anniston, La., last week. The castings were all heavy, some weighing as much as 14,000 or 15,000 pounds. They filled nearly a solid train of flat cars.

## Some Very Fast Trains on the Pennsylvania Railroad.

Speaking of the running of trains at a mile-a-minute speed, an expert in these matters said to The Saunterer recently:

"I see by reference to a published statement that the fastest train in the country will be put on the road between New York and Saratoga. According to the leaving and arriving time, its speed is not a mile a minute, but a little over forty-nine miles an hour. The 60-minute flyer on the Pennsylvania Railroad to Atlantic City is much faster."

"The regular schedule time of the Pennsylvania Railroad's Atlantic City Flyer last summer was sixty-five miles an hour from Camden to Winslow Junction, and seventy-five miles an hour from the latter point to Absecon.

"There are two trains between Philadelphia and New York on the Pennsylvania Railroad's regular schedule that make a faster run every day in the year. The 'Business Man's Express,' leaving Philadelphia at 7.33 in the morning, is scheduled at 49.83 miles per hour, while its mate, the 4 P. M. from New York, annihilates time at the rate of 50.30 miles per hour. All things considered, these two trains are really the fastest regular trains in the country, and on sections of the road, notably between New Brunswick and Trenton, their scheduled speed is considerable over a mile a minute. The sustained rate of speed, by the way, on all express trains of the Pennsylvania Railroad between New York, Philadelphia and Washington is fully as high as that on any other railroad. Taking thirty-five trains in this group, the lowest rate of speed per hour is forty-one and a fraction, while all of the others range from forty-four to fifty miles per hour."—Philadelphia Inquirer.

## Stop-Overs at Philadelphia, Baltimore and Washington on Pennsylvania Railroad Through Tickets.

In addition to its excellent train service, the Pennsylvania Railroad offers the traveler between New York and Chicago and New York and St. Louis the privilege of a stop-over of ten days at Philadelphia, Baltimore and Washington. This stop-over is granted on all through first-class tickets reading via those cities. Persons desiring to stop-over must deposit their ticket with the station agent immediately on arrival.

To those who have business to transact in these cities, or to persons who have never visited the National Capital, this privilege is a valuable one, and should appeal to all through travelers between New York and the West, and Chicago or St. Louis and the East. The stations of the Pennsylvania Railroad are centrally located in Philadelphia, Baltimore and

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Washington, and access to any section of the cities is easy by either the regular street-car lines or by the Pennsylvania Railroad cabs to be found at the Philadelphia and Washington stations.

## Convention National Educational Association, Los Angeles, Cal.—Reduced Rates via Pennsylvania Railroad.

For the National Educational Association Convention, to be held at Los Angeles, Cal., July 11 to 14, the Pennsylvania Railroad Co. will sell excursion tickets via direct routes from points on its line to Los Angeles, Cal., and return at rate of single fare for the round trip, plus \$2 membership fee. These tickets will be sold, good going, June 24 to July 7, and, when stamped by joint agent at Los Angeles, Cal., good to return, arriving at final destination, until September 5. For further information apply to ticket agents.